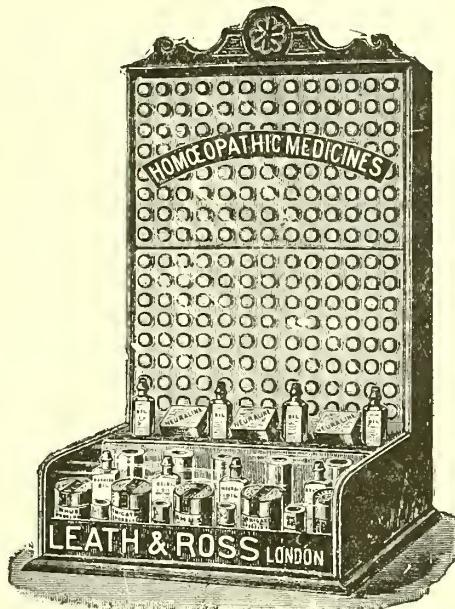


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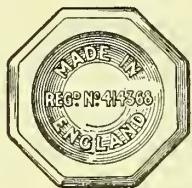
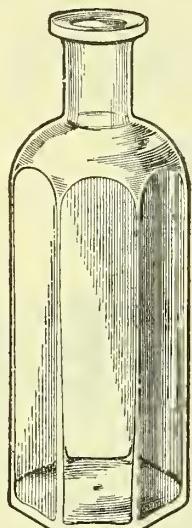
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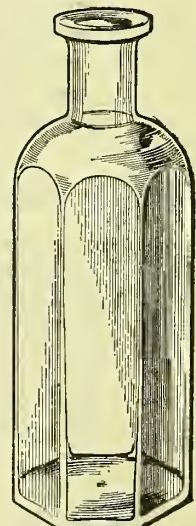
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Woolley, Jas., Sons & Co., Ltd.

Wright, Layman & Umney, Ltd.

Zimmermann, A. & M.

COLLAPSIBLE TUBES

Batts & Co., Ltd.

Brooks, Peel & Co.

Timme, W. O., & Co.

COLOURS, BEVERAGE, &c.

Boake, Roberts & Co.

Stevenson & Howell, Ltd.

(See also DAIRY ADJUNCTS)

COMBS

Hovenden, R., & Sons, Ltd.

Kent, G. B., & Sons, Ltd.

Maw, S., Son & Sons

May, Roberts & Co., Ltd.

Newberry, Francis & Sons, Ltd.

CONDENSERS

Bennett, E., & Son, Ltd.

Bennett, Sons & Shears, Ltd.

CONFETIONERY, MEDIC.

Ayrton, Saunders, & Co., Ltd.

CORKS

Ayrton, Sanderson & Co.

Mitchell, N. W., & Sons, Ltd.

Swales, Thomas

CORN CURE

Ontem Corn Remedy Co.

CORRUGATED PAPER

Timme, W. O., & Co.

COUNTER ADJUNCTS

Evans Sons Lescher & Webb, Ltd.

COUNTER BILLS

Ford, Shapland & Co.

COUNTER SPECIALITIES

Allen & Hanbury, Ltd.

British Drug Houses, Ltd.

Hewlett, C. J., & Sons

Lloyd, T. H., & Co., Ltd.

May, Roberts & Co., Ltd.

Newberry, F., & Sons, Ltd.

Sonthall Bros. & Barclay, Ltd.

CREAM OF TARTAR

British Drug Houses, Ltd.

CREOSOTE

Baiss Bros. & Stevenson, Ltd.

Burke, Boulton & Haywood

Morson, T., & Son

CREPE BANDAGE

Gimber, W., & Son

Norwich Crêpe Co. (1856), Ltd.

Wood, Vincent

CYANIDES

May & Baker, Ltd.

DAIRY SPECIALITIES

Fullwood, R. J., & Bland

Oldfield, Pattinson & Co.

DENTAL MECHANICS

Barker, Fred, H.

Culwick, H. E.

Fentiman, A. G.

Fentiman, A. J., & Co.

Halder, E. C.

Wardale & Co.

DISINFECTANTS

Baiss Bros. & Stevenson, Ltd.

Burt, Bonlton & Haywood, Ltd.

Candy & Mitchell, Ltd.

Cook, E., & Co., Ltd.

Jeyes' Sanitary Compounds, Ltd.

Kay Bros., Ltd.

Sanitas Co., Ltd.

Tomlinson & Hayward, Ltd.

Willows, Francis B. & T.

Wright, Layman & Umney, Ltd.

Zimmermann, C., & Co.

DRUGS, CRUDE

Baiss Bros. & Stevenson, Ltd.

Brook, Parker, & Co., Ltd.

Gathberg's Exor.

Hornet & Sons

Hymans, H., & Co.

Morrison, R., & Co.

Potter & Clarke, Ltd.

Ransom, W., & Son

Salle, H., & Cie.

DENTIFRIES

Bash & Co.

Beobaham, T.

Beiersdorf, P., & Co.

Bell, John, Hills & Lucas, Ltd.

Blackie, R.

Burroughs Wellcome & Co.

Christy, T., & Co.

Cook, E., & Co., Ltd.

Eucryl, Ltd.

Hall & Ruokel

"Irex" tooth-powder

Jewshry & Brown

Lambert PharmaCo.

McKesson & Rohrhins

Martindale, W.

Maw, S., Son & Sons

Newherty, F., & Sons, Ltd.

Odol Chemical Works

Rowland, A., & Sons

Standard Tablet & Pill Co.

Woods, W., & Son

Woolley, J., Sons & Co., Ltd.

DEVELOPERS

Express Developing Co.

DEXTRINE

Fink, F., & Co.

DIABETIC BREAD AND FOOD

Brunswell Jenne

Callard & Co.

Van Abbott, G., & Sons

DIGESTIVE PRODUCTS

Arnout & Co., Ltd.

Benger's Food, Ltd.

Fairchild Bros. & Foster

Parke, Davis & Co.

Squire & Sons

Zimmermann, C., & Co.

DRYSALTERIES

Harker, Stagg & Morgan, Ltd.

DYES

Johnson, D., & Son

Whitaker & Co. (Hat)

DRUGGISTS' SUNDRIES

Ayrton, Saunders & Co., Ltd.

Barolay & Sons, Ltd.

Berliner, Arthur

Burge, Warren & Ridgley

Bush, H. W., & Co., Ltd.

Chemist's Co-operative Wholesale

Christy, T., & Co.

Edwards, W., & Son

Evans Sons Lescher & Webb, Ltd.

Hewlett, C. J., & Sons

Maw, S., Son & Sons

May, Roberts & Co., Ltd.

Poths, H., & Co.

Quelch, H. C., & Co.

Reuter, R. J.

Sangers'

Schutze, F., & Co.

Shirley Bros., Ltd.

Solport Bros.

Southall Bros. & Barclay, Ltd.

Tidman & Son, Ltd.

Toogood, W., Ltd.

Viscoe Co., Ltd.

Wattenbach, O.

Wood, Vincent

Woolley, J., Sons & Co.

EAU DE COLOGNE

Farina, J. M.

Farina, J. M. (No. 4)

Fickens, Courtenay & Co.

McCracken, J. & R.

Schutze, F., & Co.

EDUCATIONAL INSTITUTIONS

Bath and West of England College of Pharmacy.

British Optical Institute

Edinburgh Central School

Glasgow School of Pharmacy

Leeds College of Pharmacy

EFFERVESCENT PREPS.

Allen & Hanburys, Ltd.
Baiss Bros. & Stevenson, Ltd.
Bishop, Alfred, Ltd.
Blackie, R.
Bristol Myers Co.
Butler, T. E., Son, & Co.
Cox, A. H. & Co., Ltd.
Davies, Sons & Co.
Evans Sons Lescher & Webb, Ltd.
Goodall, Backhouse & Co.
Howards & Sons, Ltd.
Kutnow, S., & Co., Ltd.
Newball & Mason
Potter & Clarke
Standard Tablet & Pill Co.
Strange, John & E.
Tyner, T., & Co., Ltd.
Wright, Layman & Umney, Ltd.

EMULSIONS, C.T.O., ETC.

Allen & Hanburys, Ltd.
Ayton, Saunders & Co., Ltd.
Baiss Bros. & Stevenson, Ltd.
Blackie, Robert
British Drug Houses, Ltd.
Faulding, F. H., & Co.
Harker, Stagg & Morgan, Ltd.
Lorimer & Co., Ltd.
Oldfield, Pattinson & Co.
Parke, Davis & Co.
Scott & Bowne, Ltd.
Southall Bros. & Barclay, Ltd.
Woolley, Jas., Sons & Co.
Wright, Layman & Umney, Ltd.

ENTOMOLOG. APPARATUS

Watkins & Doncaster

ENEMAS

Balley, W. H., & Son
Burge, Warren & Ridgley, Ltd.
Davol Rubber Co.
Maw, S., Son & Sons
Toogood, W., Ltd.
Warne, W., & Co. Ltd.

EPSOM SALTS

Howards & Sons, Ltd.
ESSENCES, CONCRETE

Lantier Fils
Murray O., & Co., Ltd.

ESSENCES, SOL. AND FRUIT

Alliance Drug & Chem. Co.
Barnett & Foster
Bush, W. J., & Co., Ltd.
Enerst Bros.
Hay, Wm., Ltd.
Lautier Fils
London Essence Co.
Lorimer & Co., Ltd.
Newball & Mason
Spencer, J., Son & Co.
Stevenson & Howell, Ltd.
Zimmermann, A. & M.

ETHERS

Baiss Bros. & Stevenson, Ltd.
Macfarlan, J. F., & Co.
May & Baker, Ltd.
Tyner, T., & Co., Ltd.
White, A., & Sons

EUCALYPTUS OIL

Baiss Bros. & Stevenson, Ltd.
British Drug Houses, Ltd.
Hymans, H., & Co.

EXTRACT OF HERBS

Newball & Mason
Potter & Clarke

EXTRACTS (MEDICINAL)

Allen, Stafford, & Sons, Ltd.
Chemist's Co-operative Wholesale
Evans Sons Lescher & Webb
Gathergood's Excr.
Hewlett, C. J., & Son, Ltd.
Parke, Davis & Co.
Ransom, W., & Son
(See also WHOLESALE DRUGGISTS)

FEEDING BOTTLES

Brefitt, E., & Co., Ltd.
Evans Sons Lescher & Webb, Ltd.
Hovenden, R., & Sons, Ltd.
Kilner Bros., Ltd.
Maw, S., Son & Sons
Sangers'
Solport Bros.
Southall Bros. & Barclay Ltd.

FOODS, SPECIAL

Allen & Hanburys, Ltd.
Bayer Co., Ltd.
Benger's Food, Ltd.
Brand & Co., Ltd.
Brnsson Jeune
Burt, C. J.
Callard & Co.
Fairchild Bros. & Foster
Frame Food Co., Ltd.
Menley & James, Ltd.
Natural Food Co., Ltd.
Wander, A.

FERTILISERS

Voss, Walter, & Co.
With's Chemical Manne Co.

FILTERS

Berkfeld Filter Co., Ltd.
Seitz, Theo

FLESH GLOVES

Sangers'
Solport Bros.

FLYCATCHERS

Abastine Co. (British), Ltd.
Deansmere Manfg. Co.
Ford, Shapland & Co.
Frowein, C.
Kay Bros., Ltd.
Smith, J. H., & Co.
Tunbridge & Wright

FOODS, INFANTS'

Allen & Hanburys, Ltd.
Benger's Food, Ltd.
Frame Food Co., Ltd.
Lofthouse & Salter
Natral Food Co., Ltd.
Willows, Francis B. & T.

FRUIT SYRUPS

Idris & Co., Ltd.

FULLER'S EARTH

Mumford, G. S., & Sons

FUMIGATORS

Corry & Co., Ltd.

Voss, Walter & Co.

GELATIN AND GLUE

Boehm, F., Ltd.

GLAUBER'S SALT

Bramwell, E. & Son

Howards & Sons, Ltd.

GLYCERIN

Boehm, F., Ltd.

Fuerst Bros.

Price's Patent Candle Co.

GLYCERIN PLANT

Forsyth, E., & Son, Ltd.

GOLDBEATER'S SKIN

Guttmann & Leslie Gates

GOLD PAINT

Judson, D., & Son

GRINDERS

Allen, Stafford, & Sons, Ltd.

Goodall, Backhouse & Co.

Willows, Francis B. & T.

GUMMED PAPER TAPE

Gosheron, John, & Co.

GUMS

Fink, F., & Co.

HAIR DYES

Blackie, Robert

Harker, Stagg & Morgan, Ltd.

HAIR PREPARATIONS

Bates, F. W.

Blackie, Robert

Capsuloids (1909), Ltd.

Chesebrough Manfg. Co.

Edwards' "Harlene" Co.

Egglossa Mfg. Co.

Harker, Stagg & Morgan, Ltd.

Herpicide Co.

John Strange Winter

Robare's Aureoline

Rowland, A., & Sons

To-Kalon Mfg. Co., Ltd.

HAT DYES

Whitaker & Co.

HEATING APPARATUS

Clark, S., & Co.

HERBS

Brook, Parker & Co., Ltd.

Miller, J. & G.

Potter & Clarke, Ltd.

Ransom, W., & Son

HOMOEOPATHIC MEDICINES

Ashton & Parsons, Ltd.

Epps, James, & Co.

Keene & Ashwell, Ltd.

Leath & Ross

HOTELS

Esmond Hotel

Kingsley Hotel

Thackeray Hotel

HOT-WATER BOTTLES

Berliner, Arthur

Burge, Warren & Ridgley

Dunlop Rubber Co., Ltd.

Galen Mfg. Co., Ltd.

Hutchinson Co.

Maw, S., Son & Sons

May, Roberts & Co.

Newbery, F., & Sons, Ltd.

Southall Bros. & Barclay

Tompkins, James, Ltd.

Wood, Vincent

HYDROGEN PEROXIDE

May & Baker, Ltd.

Sanitas Co., Ltd.

Tyler, T., & Co., Ltd.

HYPOPHOSPHITES

May & Baker, Ltd.
Tyrer, T., & Co., Ltd.

INHALERS

Maw, S., Son & Sons

INSECT POWDER

Boehm, F. Ltd.

Smith, B. A., & Co.

INSECTICIDES

Acme Chemical Co., Ltd.

Corry & Co., Ltd.

Christy, Thos., & Co.

Smith, B. A., & Co.

Tomlinson & Hayward, Ltd.

Voss, Walter, & Co.

INVALIUD CHAIRS

Ellmore, W. T., & Son, Ltd.

IODINE AND IODIDES

Howards & Sons, Ltd.

Morsom, T., & Son

ITROSYL

Fletchett, Fletcher & Co.

JARS AND POTS

Brefitt, E., & Co., Ltd.

Bush, H. W., & Co., Ltd.

Christy, T., & Co.

Johnsen & Jorgensen Ltd.

Kilner Bros., Ltd.

Lang, Jules, & Son

Maw, S., Son & Sons

Poths, H., & Co.

Renter, R. J.

Stipendum Stopper Co.

Toogood, W., Ltd.

LACTIC FERMENT PREPS.

Allen & Hanburys, Ltd.

Cox, Arthur H., & Co., Ltd.

Davies Sons & Co.

Evans Sons Lescher & Webb, Ltd.

Lloyd, T. Howard, & Co.

Martindale, W.

Parke, Davis & Co.

Standard Tahlet Co.

Wilcock, Jozeau & Co.

LANOLINE

Burroughs Wellcome & Co.

Christy, T., & Co.

LARD

Chemist's Co-operative Wholesale

Ewen, J., & Sons

LIME JUICE AND CORDIAL

Evans Sons Lescher & Webb, Ltd.

Goodall, Backhouse & Co.

Idris & Co., Ltd.

LINSEED, CRUSHED, ETC.

Allen, Stafford, & Sons

Mumford, G. S., & Sons

LIN'S

Liverpool Lint Co.

Robinson & Sons, Ltd.

Vernon & Co., Ltd.

LIQUORICE JUICE

Boehm, F. Ltd.

British Drug Houses, Ltd.

Evans, Gray & Hood

Fnerst Bros.

Evans Sons Lescher & Webb, Ltd.

Hornier & Sons

Jackson, E. E.

Mumford, G. S., & Sons

Poppelreuter, W.

Ransom, W., & Son

Scheller, Emil, & Co.

Schimmel & Co.

Spencer, J., Son & Co.

Stevenson & Howell, Ltd.

Wright, Layman & Umney

Zimmermann, A. & M.

OILS, FATTY, ETC.

Allen, Stafford, & Sons, Ltd.

Fnerst Bros.

Price's Patent Candle Co.

Schliemann's Oil & Ceresine Co.

Smith, B. A., & Co.

Wood, Chas. E.

OINTMENTS

Blackie, R.

Bngess, E.

Chemist's Co-operative Wholesale

Lyle & Co.

Oldfield, Pattinson & Co.

Yeomans, Ltd.

OILS, MINERAL

Fnerst Bros.

Price's Patent Candle Co.

ORANGE WINE

Melrose-Drover Co. Ltd.

TTO OF ROSE

Bontohoff & Kidoff

Reitmeyer & Co. (synthetic)

Shipkoff & Co.

MAGNESIA AND ITS SALTS

Henry, T. & W.

Howards & Sons, Ltd.

May & Baker, Ltd.

Parke, Davis & Co.

Washington Chemical Co.

MALT EXTRACT & PREPS

Allen & Hanburys, Ltd.

Blackie, R.

British DiaMalt Co.

Burroughs Wellcome & Co.

Evans Sons Lescher & Webb

Hewlett, C. J., & Son

Lorimer & Co., Ltd.

Montgomerie & Co., Ltd.

Oppenheimer, Son & Co., Ltd.

Paine & Co., Ltd.

Southall Bros. & Barclay, Ltd.

Woolley, Jas., Sons & Co., Ltd.

Wright, Layman & Umney

MEAT EXTRACTS

Armour & Co., Ltd.

Brand & Co., Ltd.

MEDICINE CHESTS

Burroughs Wellcome & Co.

Keene & Ashwell, Ltd.

Leath & Ross

Lloyd, T. Howard, & Co.

Parke, Davis & Co.

MENTHOL CONES

Bush, H. W., & Co., Ltd.

Lubenow, Hugo, Ltd.

Maw, S., Son & Sons

MERCURIALS

Howards & Sons, Ltd.

May & Baker, Ltd.

Merck, E.

Tyler, T., & Co., Ltd.

METEOROLOGICAL SETS

Darton, F., & Co.

METHYLATED SPIRIT

Burrough, J., Ltd.

Preston's Liverpool Distillery

Randall & Son, Ltd.

MINERAL WATERS AND SALTS

Apollinaris Co., Ltd.

British Drug Houses, Ltd.

Burrow, W. & J.

Cheltenham Municipality

Findlater & Co., Ltd.

Hughes, E. Griffiths

Ingram & Royle, Ltd.

Vichy (State Springs)

MOTOR GOGGLES

OPTICAL GOODS

Bowright & Grey
Darton, F., & Co.
Maw, S., Son & Sons
Nitsche & Günther
Kaphaef's, Ltd.

OXYGEN APPARATUS

Oppenheimer, Son & Co., Ltd.

OZONE GENERATOR

Reuter, R. J.

PALM OILS

Oppenheimer, Son & Co.

PAPER TUBES

O'Neill, S., & Sons, Ltd.

PASTILLES

Allen & Hanburys, Ltd.
Asche, C. F., & Co.
Burroughs Wellcome & Co.
Denoual, J., & Co.
Epps, James & Co.
Evans Sons Lescher & Webb
Warrick Bros.

PATENT AGENT

Barker, R. W.

PERFUME FILTERS

Seitz, Theo.

PERFUME MATERIALS

Bontschiff & Kidwell
Bush, W. J., & Co., Ltd.
Chiris, Antoine
Compagnie Morana
Lautier fils
Murray, O., & Co., Ltd.
Scheffler, Emil & Co.
Schimmel & Co.
Shipkoff & Co.
Spencer, J., Son & Co.
Zimmermann, C., & Co.

PERFUMES

Allen & Hanburys, Ltd.
Barclay & Sons, Ltd.
Bromley, H., & Co., Ltd.
Bush, W. J., & Co., Ltd.
Christy, T., & Co.
Chuit, Naef & Co.
Erasmie, Co., Ltd.
Evans Sons Lescher & Webb, Ltd.
Hewlett, C. J., & Son
Hovenden, R., & Sons, Ltd.
John Strange Winter
Lescol Perfumery Co.
McCracken, J. & R.
Maw, S., Son & Sons
Morison, G. H., & Co., Ltd.
Newbery, F., & Sons, Ltd.
Quelch, H. C., & Co.
Southall Bros. & Barclay
Spencer, J., Son & Co.
To-Kalon Mfg. Co., Ltd.
Warrick Bros.
West, T., & Son

PESSARIES

Burge, Warren & Ridgley
Itendell, W. J.

PETROLEUM EMULSION

British Drug Houses, Ltd.
PETROLEUM JELLY

Chesebrough Mfg. Co.

Schlemann's Oil & Ceresine Co.

PHOTO-CHEMICALS

Boehringer, C. F., & Soehne
Merck, E.

Reitmeyer & Co.

PHOTO-ENLARGERS, PRINTERS, &c.

Done, John
Express Developing Co.

Hanifax Photographic Co.

PHOTO-GOODS

Barclay & Sons, Ltd.
Burroughs Wellcome & Co.
Darton, F., & Co.
Evans Sons Lescher & Webb, Ltd.
Halifax Photographic Co.
Ilford, Ltd.
Kent, G. B., & Sons, Ltd.
Lennon, Ltd.
May, Roberts & Co.
Newbery, F., & Sons, Ltd.
Reitmeyer & Co.

PILL COUNTERS

Bornkessel, F. G.

PILL MAKERS

Allen & Hanburys, Ltd.
Asche, C. F., & Co.
Bishop, Alfred, Ltd.
British Drug Houses, Ltd.
Cox, A. H., & Co., Ltd.
Davies, Sons & Co.
Howards & Sons, Ltd.
Lloyd, T. Howard, & Co.
McKesson & Robbins
Parke, Davis & Co.
Standard Tablet & Pill Co.
Wand Mfg. Co.

PLEATED PAPER

Darter, Wilkinson & Co.
POLISHED LUMINOUS

Bradley & Bourdais

Judson, Daniel, & Son

Oakey, J., & Son, Ltd.

PROPRIETARY ARTICLES

Anglo-American Drug Co.

Ashton & Parsons, Ltd.

Barclay & Sons, Ltd.

Bayer Co., Ltd.

Beecham, T.

Beiersdorf, P., & Co.

Box, W. H.

British Drug Houses, Ltd.

British Liquozone Co.

Burgess, E.

Capsuloids (1909), Ltd.

Chameiron Oil Co., Ltd.

Christy, F., & Co.

Coleman & Co., Ltd.

Congreve, G. T.

Conoid Co.

Cox, A. H., & Co., Ltd.

Daggett & Ramsdell

Daisy, Ltd.

Danyz Virus, Ltd.

Da Silva & Co.

Davenport, J. T., Ltd.

Day & Sons (Crewe), Ltd.

Denoual, J., & Co.

Esoeont Compounds, Ltd.

Edwards, W., & Son

Evans Sons Lescher & Webb, Ltd.

Faulding, F. H., & Co.

Fellows' Syrup

Fennings, Alfred

Ferris & Co.

Fujiord, C. E., Ltd.

Goodall, Buckhouse & Co.

Harvey & Co. (Dublin), Ltd.

Henry, T. & W

Hovenden, R., & Sons, Ltd.

Hughes, E. Griffiths

Ichthyol Gesellschaft

International Chemical Co.

Iron-Ox Rem., Co., Ltd.

Kay Bros., Ltd.

Kutnow, S., & Co., Ltd.

Lalor's, Dr., Phosphodine

Lofthouse & Saltmer

Lorimer & Co., Ltd.

Martindale, W.

May, Roberts & Co.

Menley & James, Ltd.

Newbery, F., & Sons, Ltd.

Odol Chemical Works

Owbridge, W. T., Ltd.

Pedezy Co.

Phillips, Chas. H., Chem. Co.

Reitmeyer & Co.

Resinol Chemical Co.

Sangers' Sartolin, Ltd.

Schimmel & Co.

Scott & Bowne, Ltd.

Squire & Sons

Standard Tablet & Pill Co.

Stedman's Teething Powders

Thompson & Capper

Tomoda, K., & Co.

Tunbridge & Wright

Voss & Co.

Walker & Son

Wilcox, Jozreau & Co.

Yeomans, Ltd.

Zimmermann, A. & M.

Zimmermann, C., & Co.

Zotos, Ltd.

(See also DENTRIFICES and TOILET ARTICLES)

PLASTERS

Allcock Mfg. Co.

Barliver, Arthur

Beiersdorf, P., & Co.

Dalmas, A. de St., & Co.

Geiger & Braun

Leslies, Ltd.

Maw, S., Son & Sons

Solport Bros.

POSTERS

Ford, Shapland & Co.

PRINTERS

Christie, Malcolm & Co.

Dudley & Co.

Ford, Shapland & Co.

Harrison & Waide

Smith, W. H., & Son

Townsend, J., & Sons

PULVERETTES

Warrick Bros.

PULVERETTES

Oppenheimer, Son & Co., Ltd.

PUMPS

Berkefeld Filter Co., Ltd.

QUININE AND SALIS

Boehringer, C. F., & Soehne

Howards & Sons, Ltd.

Pointet & Girard

RAPE OILS

Hull Oil Mfg. Co.

RAZORS

Auto-Strop Safety Razor Co.

Hovenden, R., & Sons, Ltd.

International Distributing Co.

RENNET

Fulwood, R. J., & Bland

Oldfield, Pattinson & Co.

RESINS AND RESINOIDS

Allen, S., & Sons, Ltd.

Allen & Hanburys, Ltd.

Morson, T., & Son

Ransom, W., & Son

Smith, T. & H., Ltd.

RESPIRATORS

Zimmer & Co.

RUBBER GOODS

Burge, Warren & Ridgley, Ltd.

Davol Rubber Co.

Dunlop Rubber Co., Ltd.

Evans Sons Lescher & Webb, Ltd.

Galen Mfg. Co.

Hasting, Lang & Co., Ltd.

Haywood, J. H., Ltd.

Hutchinson Co.

Maw, S., Son & Sons

May, Roberts & Co.

Shirley Bros., Ltd.

Warne, W., & Co., Ltd.

SACCHARIN

Saccharin Corporation, Ltd.

SALICIN

Macfarlan, J. F., & Co.

Smith, T. & H., Ltd.

SAMPLE CASES

Keane, Thomas

SANTONIN

Smith, B. A., & Co.

SAPONIN

Field, C. W.

Stamer, Dr. R.

SAUCES

Goodall, Backhouse & Co.

SCALE PREPARATIONS

Morson, T., & Son

SCALES, WEIGHING

Maw, S., Son & Sons

Parnall & Sons, Ltd.

Southall Bros. & Barclay, Ltd.

SEA-SALT

Tidman & Son, Ltd.

SEA-SICKNESS REMEDY

Zotos, Ltd.

SEEDS

Brook, Parker & Co., Ltd.

Conway, Wm., & Sons, Ltd.

Potter & Clarke, Ltd.

SERUMS AND ANTITOXINS

Allen & Hanburys, Ltd.

American Animal Therapy Co.

Evans Sons Lescher & Webb

Parke, Davis & Co.

Schimmel & Co.

Wilcox, Jozreau & Co.

SHARES

McAdam & Tuckniss

SHEEP-DIPS

Acme Chemical Co., Ltd.

Burt, Boulton & Haywood

Sanitas Co., Ltd.

Tomlinson & Hayward, Ltd.

SHOP-FITTING

Ayrton-Graham, Ltd.

Bowling & Son

Evans Sons Lescher & Webb, Ltd.

Josephs, Philip, & Sons, Ltd.

Maw, S., Son & Sons

Mills, H.

Parnall & Sons, Ltd.

Rudduck & Co.

Sangers'

Southall Bros. & Barclay, Ltd.

SIZE POWDER

Tomlinson & Hayward, Ltd.

SOAP PLANT

Forshaw, E., & Son, Ltd.

SOAP MATERIALS

Armour & Co., Ltd.

Chiris, Antoine

SOAPS, MEDICATED

Armour & Co., Ltd.

Bronnley, H., & Co., Ltd.

Calvert, F. C., & Co.

Fulford, C. E., Ltd.

Lambert Pharmacal Co.

Resinol Chemical Co.

Wright Layman & Umney

SODIUM BICARBONATE

Brunner, Mond & Co., Ltd.

Howards & Sons, Ltd.

Mumford, G. S.

SOAP

Allen & Hanburys, Ltd.

Armour & Co., Ltd.

Bell (John), Hills & Lucas, Ltd.

Bronnley, H., & Co., Ltd.

Chesebrough Mfg. Co.

Cook, E., & Co., Ltd.

Erasmic Co., Ltd.

Evans Sons Lescher & Webb, Ltd.

Hull Oil Mfg. Co., Ltd.

International Distributing Co.

John Strange Winter

Lactoline Co.

Lescol Perfumery Co.

Oakley, J., & Son, Ltd.

Pears, A. & F., Ltd.

Peats Products (Sphagnol), Ltd.

Price Patent Candle Co.

Shaw, Henry, & Co.

Wright, Layman & Umney

SODA FOUNTAINS

Consol Automatic Aerators, Ltd.

SOOTHERS & FITTINGS

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Burroughs Wellcome & Co.
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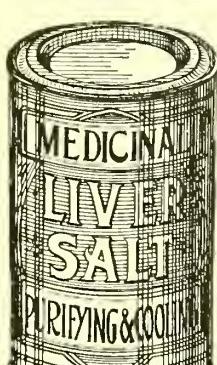
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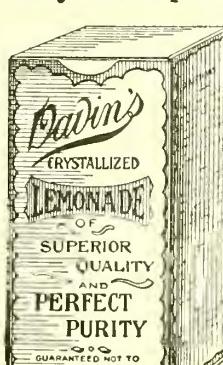
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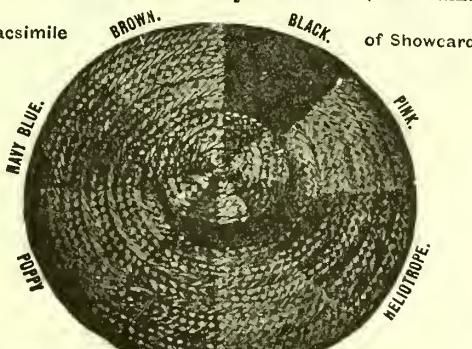
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Medicinal Tinctures and Spirits prepared with Pure Spirit supplied in Bond for Export.

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The number of dentifrices is myriad, their names are legion,

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CALOX

THE OXYGEN TOOTH POWDER.

Its principle is the evolution of oxygen.

Its efficiency as a cleanser of the teeth is due to the oxygen which it generates when used.

Not only antiseptic, but deodorant, two desirable properties of a tooth powder. Its oxidizing and deodorizing power was obvious in our experiments.—THE LANCET, London, Eng.

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MCKESSON & ROBBINS, New York, U.S.A., Manufacturers.

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Printing will give the desired result.

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Winter Issue, 1909, pp. 86, 87.
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EGGLOSSA FOR THE HAIR.

¶ It is a quick selling line, and shows a better profit than other advertised hair preparations.

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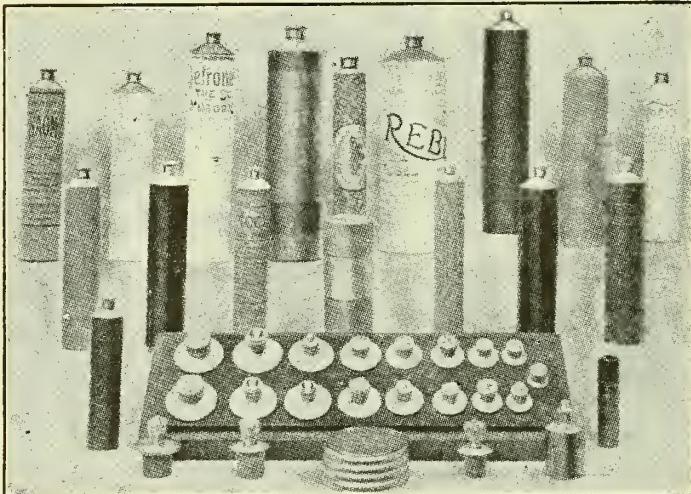
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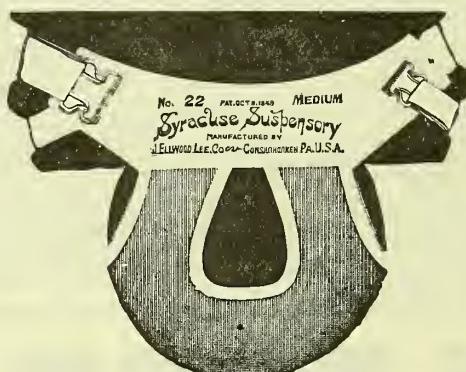
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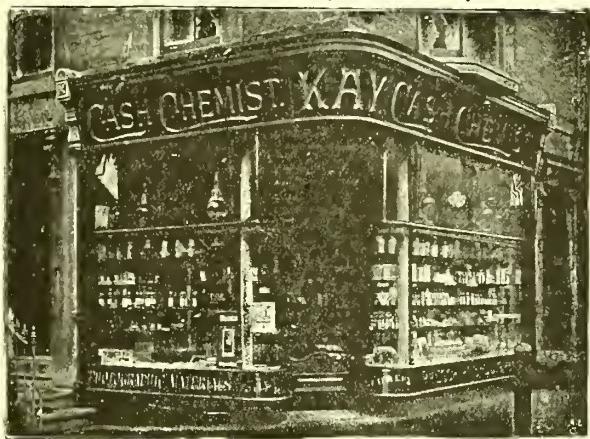
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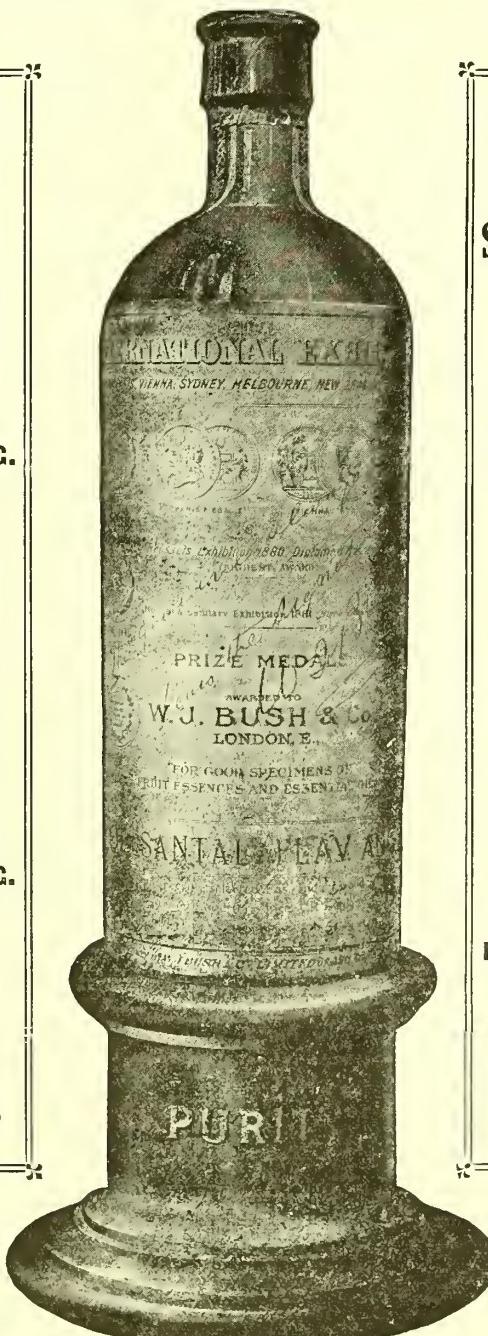
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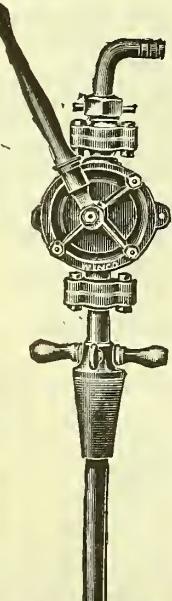
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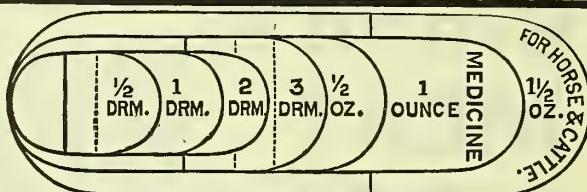
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To the Drug Trade.

We respectfully draw attention to all interested in the sale of
HORTICULTURAL SUNDRIES
that our new and up-to-date Trade Catalogue is now ready, and
we shall be pleased to forward a copy on application for same.

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ESTABLISHED OVER 50 YEARS.

Treasury Grant for manufacturing of all Tobacco Preparations used for Agricultural and Horticultural purposes
free of duty obtained in 1866. See advertisement Shippers' No., page 61.

**INCREASE YOUR RETURNS
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WITH'S PLANT FOOD

The Finest Fertiliser in the World.

**SOLD IN TASTEFULLY
— ENAMELLED TINS.—**

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Attractive in any window or shop.

**AGENTS WANTED EVERYWHERE.
LIBERAL TRADE TERMS**

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With SHOWCARDS, PAMPHLETS, and HANDBILLS.

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Special Manures for all purposes.
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**FOUR PAYING LINES
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Woburn Bordeaux Paste (Patent).

Bordeaux Mixture made in a new, improved, and concentrated form. The best remedy for Apple and Pear Scab, Brown Rot of Fruit, Potato Disease, &c. In jars to retail from 5d. and 8d. each.

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This is *not* a new and untried preparation. If you keep back numbers of the C. & D., please refer to p. 205 of the issue dated *July 30th, 1898*, for our page advertisement.

The demand is now growing so greatly that we must appoint an agent in each important town in Great Britain and Europe.

We invite also Colonial and Foreign Chemists to apply for agency terms. Good profit: free booklets and other advertising matter.

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Regd. Trade Mark.

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= **FOR HORSES** =

Used largely by H.M. Cavalry Regiments, Trainers, and Stud Farms.

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TWELVE YEARS AGO.

4th May, 1896.

Gentlemen,—I bought a pony who had done 250 miles in four days at Kajauri-Kach only a very short while before. He was then only skin and bones. Three tins of JOHN’S CONDITION POWDER and the treatment recommended in the directions made him a different animal.

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J. W. SKUDDERSON,
 Capt. Gordon Highlanders.

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(MEDICAL)

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(Vide *The Medical Press*, Feb. 14, 1906.)

N.B.—It has been found necessary to substitute the term "Rideal-Walker Co-efficient" for that originally introduced by the authors—viz., "Carbolic Acid Co-efficient"—owing to the abuse of the latter on the part of unscrupulous manufacturers and vendors.—*Vide British Medical Journal*, 6th April, 1907.

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Gran. Parad., 1 cwt. @ cwt. ; 7 lbs. @ lb. ; Powder, 7 lbs. @ lb. ; 1 lb. @ 8/- lb.	* Easton, p.s. 1-3, B.P., 1 lb. @ 3/- lb. * Ferri Dialysatus 6 lbs. @ 7d. lb.	Ol. Morrhuae, Nov. 1909, finest non-freezing, 25 gall. tin-lined barrels @ 95/- per barrel ; 2 gall. tins @ 8/6 each.
Guaiacol Carb., 7 lbs. @ 7/8 lb. ; 1 lb. @ 8/- lb.	* Ferri Iod. p.s. 1-7, 1 lb. @ 5/9 lb.	Ol. Myrbane, 1 cwt. @ 48/- cwt. ; 9 lbs. @ 6½ d. lb.
Guaiacol, pure, 1 lb. @ 5/10 lb.	* Ferri Perchlor. Fort. P.B., 7 lbs. @ 4d. lb.	Ol. Mystrica, 7 lbs. @ 3/4 lb. ; 1 lb. @ 3/8 lb.
Gum Acaciae sorts, 3 cwt. @ 38/- cwt. ; 1 cwt. @ 45/- cwt. ; 7 lbs. @ 5½ d. lb. ; English Ground Powder, No. 1, 1 cwt. @ 95/- cwt. ; 7 lbs. @ 1/- lb. ; No. 2, 1 cwt. @ 60/- cwt. ; 7 lbs. @ 8d. lb.	* Ferri Porph. Co. p.s. 1-7, 7 lbs. @ 1/6 lb.	Ol. Nucis, Pallid, 45 galls. @ 3/8 gall. ; 2 gall. tins @ 4/6 gall.
Gum Benzoin, Sumatra, 84 lbs. @ 1/4 lb. ; 7 lbs. @ 1/6 lb.	* Hypophosph. Co. p.s. B.P.C., 1 lb. @ 3/4 lb.	Ol. Olive P.B., good yellow, 45 gall. Barrel @ 4/3 gall. ; 2 galls. @ 5/3 gall.
Gum Catechu, Nig. English Ground, 1 cwt. @ 50/- cwt. ; 14 lbs. @ 6d. lb.	* Iodi Fort. B.P., 5 lbs. @ 4/9 lb.	Ol. Origani Rub., Coml., 28 lbs. @ 1/5 lb. ; 9 lbs. @ 1/7 lb.
Gum Guaiaci, 1 cwt. @ 10½ d. lb. ; 28 lbs. @ 1/- lb.	* Morphinæ Acet. or Hydrochlor. P.B., 6 lbs. @ 2/7 lb.	Ol. Peach Kernel (so-called), 1 cwt. @ 10d. lb. ; 56 lbs. @ 10½ d. lb. ; 9 lbs. @ 1/- lb.
Gum Juniper, 14 lbs. @ 10d. lb.	* Opii Sed., 5 lbs. @ 3/3 lb.	Ol. Pulegi, B.P., 5 lbs. @ 5/6 lb. ; 1 lb. @ 6/- lb.
Gum Thus Elect., 2½ cwt. @ 28/- cwt. ; 28 lbs. @ 32/- cwt.	* Plumbi Subacet., B.P., 7 lbs. @ 2½ d. lb.	Ol. Ricini Alb. Opt. Medicinal, 176 lbs. @ 38/6 cwt. ; 88 lbs. @ 41/- cwt. ; 44 lbs. @ 42/6 cwt. ; 9 lbs. @ 6d. lb. ; for export, 1 cwt. drums recommended, 7/6 each extra or 3½ cwt. barrels @ 34/6 cwt.
Gum Tragac. Elect., English Ground, 7 lbs. @ 3/6 lb. ; 1 lb. @ 3/9 lb.	* Pruni Virg. p.s. 1-7, 3 lbs. @ 2/2 lb.	Ol. Rosmarini Coml., 28 lbs. @ 1/6 lb. ; 9 lbs. @ 1/7 lb. ; B.P., 9 lbs. @ 2/5 lb. ; 1 lb. @ 2/9 lb.
* Heading (Frothing Ess.), 5 lbs. @ 1/1 lb.	* Rhædæos pro Syr. 1-7, 7 lbs. @ 1/11 lb.	Ol. Santali Flav. Ang. B.P., 5 lbs. @ 10/1 lb. ; 1 lb. @ 10/6 lb.
Heliotropine, 1 lb. @ 7/- lb.	* Rhei p.s. 1-7, 6 lbs. @ 2/2 lb.	Ol. Sassafras, genuine, 28 lbs. @ 3/3 lb. ; 1 lb. @ 3/8 lb.
Hellebore White Powder (Foreign Ground), 1 cwt. @ 28/6 cwt.	* Santal Co., 1 lb. @ 3/- lb.	Ol. Sinapis Express, 1 gall. tins @ 4/6 each.
Hexamethylentetramine, 7 lbs. @ 2/- lb. ; 1 lb. @ 2/3 lb.	* Sennæ Dulc., 6 lbs. @ 1/4 lb.	Ol. Staphisagriae, Ang., 9 lbs. @ 4/6 lb. ; 1 lb. @ 5/3 lb.
Honey, White Set, Jamaica, 3½ cwt. @ 36/- cwt. ; 28 lbs. @ 47/- cwt. ; Californian, ½ cwt. @ 56/- cwt. ; 7 lbs. @ 8d. lb.	* Sennæ pro Syr. 1-7, 6 lbs. @ 2/- lb.	Ol. Succin. Rect., 28 lbs. @ 1/1 lb. ; 9 lbs. @ 1/2 lb. ; 4½ lbs. @ 1/3 lb.
Hydrargyrum P.B., 75 lbs. bottle @ 59/- 10s. ; 10 lbs. @ 3/- lb. ; 1 lb. @ 3/3 lb. ; Ammon. 28 lbs. @ 3/1 lb. ; Cretæ, 28 lbs. @ 1/5 lb. ; Iodid. Rub., 28 lbs. @ 8/9 lb. ; Oxid. Rub. 28 lbs. @ 3/1 lb. ; Perchlor. 28 lbs. @ 2/7½ lb. ; Subchlor., 28 lbs. @ 2/10 lb. ; Sulph. c. Sulph., 28 lbs. @ 2/7½ lb. ; 7-lb. quantities 1d. lb. extra, 3 lb. quantities 2d. lb. extra, 1 lb. quantities 3d. lb. extra.	* Strychninae, Hyd. B.P., 6 lbs. @ 1/6 lb.	Ol. Theobromæ B.P., 8-oz. tabs, 28 lbs. @ 1/4 lb. ; 7 lbs. @ 1/5 lb.
Hydrokinone, 7 lbs. @ 3/- lb. ; 1 lb. @ 3/4 lb.	* Tolut. pro Syr. 1-7, 6 lbs. @ 1/3 lb.	Ol. Wintergreen Artificial, 56 lbs. @ 1/4 lb. ; 5 lbs. @ 1/8 lb. ; 1 lb. @ 1/10 lb.
Icthyol Ammon., 3 lbs. @ 10/9 lb. ; 1 lb. @ 11/- lb.	* Trinitriæ B.P., 1 lb. @ 6/1 lb.	Opium Turc. B.P., 14 lbs. @ 17/6 lb. ; 3 lbs. @ 18/- lb. ; 1 lb. @ 18/6 lb. ; powder, 6d. lb. extra.
* Inf. Aurant. Conc., 1 to 7, 6 lbs. @ 1/1 lb.	* Citras. B.P., 28 lbs. @ 2/6 lb. ; 7 lbs. @ 2/9 lb. ; pulv. 3d. lb. extra.	Orris, English Ground, 1 cwt. @ 60/- cwt. ; 7 lbs. @ 8d. lb.
* Aurant. Comp. Conc., 1 to 7, 6 lbs. @ 1/3 lb.	* Lycopodium, 22 lbs. @ 1/10 lb. ; 7 lbs. @ 2/- lb.	Oss. Sepia Pulv., 1 cwt. @ 6d. lb. ; 7 lb. @ 7½ d. lb.
* Buchu Conc. 1 to 7, 6 lbs. @ 1/5 lb.	Mag. Calv. Levis, 56 lbs. @ 8d. lb. ; 5 lbs. @ 10d. lb. ; 1 lb. @ 1/- lb.	Otto Rose, finest, 1 oz. @ 20/6 oz. ; No. 2, 1 oz. @ 15/6 oz.
* Calumba Conc., 1 to 7, 6 lbs. @ 11d. lb.	Mag. Calc. Pond., 56 lbs. @ 6½ d. lb. ; 7 lbs. @ 7½ d. lb.	Oxymel Cicimæ B.P., 5 cwt. @ 31/- cwt. ; 1 cwt. @ 34/- cwt. ; 7 lbs. @ 6d. lb.
* Caryoph. Conc., 1 to 7, 6 lbs. @ 11d. lb.	Mag. Carb. Levis. 70 lbs. @ 3d. lb. ; 7 lbs. @ 4d. lb.	Papain 1-80, 1 lb. @ 21/- lb. ; 1 oz. @ 1/7 oz.
* Cascariæ Conc., 1 to 7, 6 lbs. @ 1/2 lb.	Mag. Cit. Gran. 28 lbs. @ 8d. lb. ; 6 lbs. @ 9½ d. lb.	Paraffinum Durum B.P., 2 cwt. @ 3½ d. lb. ; 1 cwt. @ 3½ d. lb. ; 56 lbs. @ 4d. lb. ; 7 lbs. @ 5d. lb. ; Molle Flav. B.P., 3½ cwt. @ 16/6 cwt. ; 1 cwt. @ 25/- cwt. ; 28 lbs. @ 3½ d. lb. ; 7 lbs. @ 4d. lb. ; Alb. B.P. 3½ cwt. @ 55/- cwt. ; 28 lbs. @ 7d. lb.
* Cinchona Acid, 1 to 7, 6 lbs. @ 1/7 lb.	Mag. Sulph. fine druggists', B.P., 1 cwt. @ 6/- cwt.	Paraldehyde, B.P., 7 lbs. @ 1/10 lb. ; 1 lb. @ 2/- lb.
* Gentianæ Co., 1 to 7, 6 lbs. @ 11d. lb.	Mannæ, fine New Flake, 14 lbs. @ 3/- lb. ; 7 lbs. @ 3/2 lb. ; 1 lb. @ 3/8 lb.	Pepsin, B.P., 10 lbs. @ 8/10 lb. ; 1 lb. @ 9½ lb. Phænacit. B.P., pulv., 1 cwt. @ 2/8 lb. ; 7 lbs. @ 2/10 lb. ; 1 lb. @ 3/- lb.
* Quassiaæ Conc., 1 to 7, 6 lbs. @ 9d. lb.	Menth. dry white cryst., 60 lbs. @ 8/8 lb. ; 5 lbs. @ 9½ lb.	Phenazone, P.B., 7 lbs. @ 6/11 lb. ; 1 lb. @ 7/6 lb.
* Rhei Conc., 1 to 7, 6 lbs. @ 1/5 lb.	Morphinæ Acet. Hydrochlor. or Sulph., Pulv. B.P., 25 oz. @ 7/9 oz. ; 16 oz. @ 7/11 oz. ; 8 oz. @ 8/- oz. ; 1 oz. @ 8/4 oz. ; Pur. Præcip., Bimeconate or Tart., 1 oz. @ 10/10 oz.	Phenolphthalein, 7 lbs. @ 8/6 ; 1 lb. @ 9/- lb. Pix. Burgund. Druggists' 1¼ cwt. @ 22/6 cwt. ; 7 lbs. @ 4d. lb.
* Rossæ Acid. Conc., 1 to 7, 6 lbs. @ 1/8 lb.	Morphine Diacetyl. 4 oz. @ 11/9 oz. ; 1 oz. @ 12/6 oz. ; Hydrochlor. 6d. per oz. less.	Plumbi Acetas, Druggists', 1 cwt. @ 32/6 cwt. ; 7 lbs. @ 4½ d. lb. ; Powder, 1d. lb. extra.
* Senegaæ Conc., 1 to 7, 6 lbs. @ 2/- lb.	Myrrh. Gum. English Ground, 28 lbs. @ 1/1 lb. ; 7 lbs. @ 1/4 lb.	Podophyl Resina, P.B., 1 lb. @ 11/- lb.
* Valerianæ Conc., 1 to 7, 6 lbs. @ 1/3 lb.	Naphthaline. Candles or Balls, 1 cwt. @ 12/- cwt. ; 56 lbs. @ 14/- cwt. ; 28 lbs. @ 15/6 cwt.	Potassa Caustica Sticks, P.B., 28 lbs. @ 10d. lb. ; 6-1b. Bots. @ 11d. lb.
Insect Powder, Opt. English grd., closed flowers, 28 lbs. @ 2/- lb. ; 7 lbs. @ 2/1 lb. Foreign grd., 1 cwt. @ 80/- cwt. ; 28 lbs. @ 9d. lb.	Nux Areca, 1 cwt. @ 22/- cwt. ; 7 lbs. @ 3d. lb. ; powder, English ground, @ 59/- cwt. ; 7 lbs. @ 7½ lb.	Potas. Acetas. Gran. P.B., 28 lbs. @ 1/- lb. ; 7 lbs. @ 1/1 lb.
Iodoform Pulv. B.P., 7 lbs. @ 12/- lb. ; 3 lbs. @ 12/4 lb. ; 1 lb. @ 12/7 lb.	Oi. Amygdal. Ang., B.P., 9 lbs. @ 2/3 lb.	Potas. Carbic. pulv., 1 cwt. @ 32/6 cwt. ; 7 lbs. @ 4d. lb.
Iodium, resub. B.P., 7 lbs. @ 10/3 lb. ; 1 lb. @ 10/9 lb.	Oi. Amygdal. Essent. Artificial, free from Chlorine. 5 lbs. @ 3/- lb. ; 1 lb. @ 3/9 lb.	Potas. Brom. P.B., 1 cwt. @ 11d. lb. ; 28 lbs. @ 11d. lb. ; 7 lbs. @ 4d. lb. ; Alb. B.P. 3½ cwt. @ 55/- cwt. ; 28 lbs. @ 7d. lb.
Isinglass, Brazil, fine cut, 7 lbs. @ 3/9 lb. ; 1 lb. @ 4/- lb. ; Russian finest, 7 lbs. @ 10/6 lb. ; 1 lb. @ 11/- lb. Ribbon or Sheet, 7 lbs. @ 2/9 lb. ; 1 lb. @ 3/- lb.	Oi. Anethi Ang. B.P., 1 lb. @ 12/- lb.	Paraldehyde, B.P., 7 lbs. @ 1/10 lb. ; 1 lb. @ 2/- lb.
Lapis Pumicis, fine powder, 2 cwt. @ 8/- cwt. ; 7 lbs. @ 1½ d. lb. ; lump. 2 cwt. @ 12/- cwt. ; 7 lbs. @ 3d. lb.	Oi. Anisi. E.I., 66 lbs. @ 4/8 lb. ; 16½ lbs. @ 4/11 lb. ; 1 lb. @ 5/6 lb.	Pepsin, B.P., 10 lbs. @ 8/10 lb. ; 1 lb. @ 9½ lb. Phænacit. B.P., pulv., 1 cwt. @ 2/8 lb. ; 7 lbs. @ 2/10 lb. ; 1 lb. @ 3/- lb.
Licorice Juice, 4 and 2 oz. Sticks, 5 cwt. @ 57/- cwt. ; 1 cwt. @ 58/- cwt. ; 28 lbs. @ 7d. lb. ; 7 lbs. @ 7d. lb. @ 1½ lb. ; 1 lb. @ 1/15 lb.	Oi. Camphor. Essent., White, 80 lbs. @ 42/6 cwt. ; 40 lbs. @ 44/- cwt. ; brown, 80 lbs. @ 66/- cwt. ; 40 lbs. @ 67/6 cwt.	Phenazone, P.B., 7 lbs. @ 6/11 lb. ; 1 lb. @ 7/6 lb.
* Lin. Aconiti Meth., 5 lbs. @ 1/2 lb. ; 1 lb. @ 1/8 lb.	Oi. Caryoph. Ang., B.P., 9 lbs. @ 3/3 lb. ; 4½ lbs. @ 3/5 lb.	Phenolphthalein, 7 lbs. @ 8/6 ; 1 lb. @ 9/- lb. Pix. Burgund. Druggists' 1¼ cwt. @ 22/6 cwt. ; 7 lbs. @ 4d. lb.
* Lin. Bellad. Meth., 5 lbs. @ 1/5 lb. ; 1 lb. @ 1/8 lb.	Oi. Cassiae, 168 lbs. @ 4/4 lb. ; 6 lbs. @ 4/7 lb.	Plumbi Acetas, Druggists', 1 cwt. @ 32/6 cwt. ; 7 lbs. @ 4½ d. lb. ; Powder, 1d. lb. extra.
Lin. Camph. P.B., 40 lbs. @ 10½ d. lb. ; 9 lbs. @ 1½ d. lb.	Oi. Cinnam. B.P., 1 lb. @ 28/- lb. ; 1 oz. @ 2/2 oz.	Podophyl Resina, P.B., 1 lb. @ 11/- lb.
Lin. Sapo Meth., 9 lbs. @ 7d. lb.	Oi. Citronelle, 9 lbs. @ 1/4 lb.	Potassa Caustica Sticks, P.B., 28 lbs. @ 10d. lb. ; 6-1b. Bots. @ 11d. lb.
Lin. Tereb. Acet., B.P., 9 lbs. @ 1/- lb.	Oi. Cocoa Nucis, finest White, 80 lbs. @ 48/6 cwt. ; 40 lbs. @ 6d. lb.	Potas. Acetas. Gran. P.B., 28 lbs. @ 1/- lb. ; 7 lbs. @ 1/1 lb.
Linseed c. Oil, Crushed, 3 cwt. @ 20/6 cwt. ; 1 cwt. @ 21/6 cwt.	Oi. Eucaalypt. B.P., 1 cwt. @ 1/1 lb. ; 28 lbs. @ 1/2 lb. ; 9 lbs. @ 1/3 lb.	Potas. Carbic. pulv., 1 cwt. @ 32/6 cwt. ; 7 lbs. @ 4d. lb.
* Liq. Ammonii Acetatis Conc. 1-7, 6 lbs. @ 8d. lb. ; 1 lb. @ 10½ d. lb.	Oi. Geranii Gall. Opt., 1 lb. @ 18/6 lb. ; 8 1-oz. bots. @ 1/11 oz. ; 1 oz. @ 2/1 oz. ; Turc., 1 lb. @ 9/- lb. ; 4 oz. @ 12/6 lb.	Potas. Brom. P.B., 1 cwt. @ 11d. lb. ; 28 lbs. @ 11d. lb. ; 7 lbs. @ 1/- lb.
* Liq. Ammon. Aromatic., 6 lbs. @ 9d. lb.	Oi. Gynocardia, 5 lbs. @ 2/6 lb. ; 1 lb. @ 2/10 lb.	Potas. Chlor. Pulv., 1 cwt. @ 4d. lb. ; 7 lbs. @ 5d. lb.
* Antim. Chlor. Pure, 8 lbs. @ 6½ d. lb.	Oi. Juniperi Bacc., B.P., 4½ lb. @ 3/5 lb. ; 1 lb. @ 3/9 lb. ; Ligne Exot., 1 cwt. @ 1/2 lb. ; 28 lbs. @ 1/4 lb. ; 9 lbs. @ 1/5 lb.	Potas. Cit. B.P., 7 lbs. @ 1/6 lb.
* Arsenicalis, B.P., 7 lbs. @ 4d. lb. ; 1 lb. @ 7d. lb.	Oi. Lavand. ab Flor., 5 lbs. @ 7/- lb. ; 1 lb. @ 8/- lb.	Potas. Cyanidum 98%, 1 cwt. @ 11½ d. lb. ; 7 lbs. @ 1/2 lb.
* Arsenii Hydrochlor., B.P., 7 lbs. @ 4d. lb. ; 1 lb. @ 7d. lb.	* Minimum quantity at these prices, Home Trade, 3 Winchester Quarts assorted.	Potas. Iod. P.B., 1 cwt. @ 7/9 lb. ; 14 lbs. @ 7/10 lb. ; 3 lbs. @ 7/11 lb.

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THE CURE for Varicose Ulcers, Bad Legs, Eczema, Piles, Itching, Sores, Cuts, Wounds, Scrofula, Dermatitis and all Skin Diseases.

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THE CURE for Anaemia, Debility, Backache, Loss of Appetite, Weakness of the Nervous System and all Diseases arising through Poorness of Blood.

People who use Yeomans' Ointment or Pills never say that they received no benefit.

OF CHEMISTS, or if your Chemist does not stock send P.O. 2/9 and we will forward a LARGE SIZE box of Ointment or Pills, together with our written guarantee, as above, post free.

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This is a copy of our Advt. in Press and Handbills.

INDEX and BUYERS' GUIDE

See pages 5 to 9.

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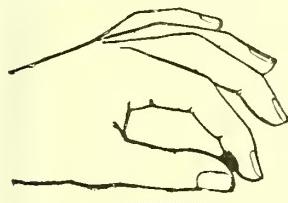
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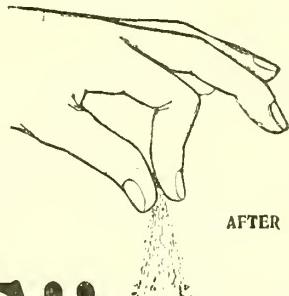
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MAY BE CRUSHED TO POWDER
BETWEEN THUMB AND FINGER.

(PATENT)



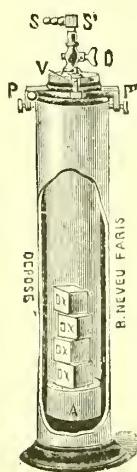
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The British Medical Association have recently analysed a large number of headache powders. The results of Analysis, recently published, prove that "Daisy" is more carefully dispensed than any other popular headache cure, either English or American.

The Analyst takes an ordinary retail packet in each case, and gives the weights of the lightest and heaviest powders in it.

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B. (An American wafer)	" "	.9 "
C. (An English powder)	" "	1.7 grains.
D. (An English powder)	" "	1.8 "
E. (An English powder)	" "	2.0 "
F. (An English wafer)	" "	2.0 "
G. (An American powder)	" "	6.0 "

The slight difference recorded in the weights of "Daisy" powders is not greater than might reasonably be expected, in view of the fact that the ordinary dispensing scale is much less sensitive than the delicate balance used by analysts. It is not possible in the ordinary course of dispensing business to weigh powders more accurately than "Daisy" powders are dispensed.

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ESTABLISHED 1893.

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Obtained by an improved process designed to remove the irritant constituents of the bacilli. Contains a definite weight of the dried bacillary substance in solution.

Doses indicated in terms of the bacillary substance actually present, and not of the weight of original dried organisms represented.

Doses: about one-fifth of those adopted for Koch's Tuberculin T.R.

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	Per Phial
(A) 1 c.c. containing 0·00001 mgm. of dried bacillary substance	0/9
(B) 1 c.c. " 0·0001 mgm. " "	0/9
(C) 1 c.c. " 0·001 mgm. " "	0/9

TRADE
MARK

'Wellcome' BRAND Tuberculin (HUMAN and BOVINE)

FOR DIAGNOSIS

" Old Tuberculin (Human and Bovine)

Each is issued in three strengths, in phials of 1 c.c., containing 0·0005 c.c., 0·001 c.c., and 0·005 c.c. of Old Tuberculin (Koch), 1/0 each.

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" Tubercl Vaccine (Human and Bovine)

BACILLARY EMULSION. Each is issued in two strengths, in phials of 1 c.c., containing 0·0001 mgm. and 0·0005 mgm. Tubercl Bacilli, 1/0 each.

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Killed—for Opsonic Estimations. In tubes, 5/0 each.

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Killed and finely ground—for Agglutination Tests. In tubes, 5/0 each.

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NEW TUBERCULIN [W]
(Human and Bovine)

Presents an accurate weight of dried bacillary substance.

Admirably adapted for Oral administration.
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0·001 mgm. of dried bacillary substance.

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ON THE P.A.T.A. SHOWCARDS & HANDBILLS ON APPLICATION.

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DOZEN

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and of
British Pharmacists throughout the Empire.
ESTABLISHED 1859.

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TRADE WITH THE COLONIES.

THE population of the British Dominions beyond the seas is eight times that of Great Britain. These millions of our fellow-subjects have daily need of medicinal preparations, perfumery, toilet articles, and druggists' requisites of all kinds, and they buy them. In order to give manufacturers and firms connected with the trades mentioned an opportunity of getting a share of the splendid business thus available, THE CHEMIST AND DRUGGIST on

April 23, 1910,

will publish a Colonial and Foreign Issue, with an extra circulation, quite in addition to the ordinary weekly subscription circulation of the *C. & D.* A booklet has been prepared by the Publisher, which contains a remarkable list of cities, towns, etc., abroad, each containing one or more actual buyers of druggists' goods, to whom the Colonial Issue will be sent. Write to the Publisher for a copy.

Summary of this Issue.

The more notable items only are dealt with.

Articles and Communications.

Spermaceti is older than Dr. Pinkus allows. See the historical notes on p. 65.

We review the first volume of a new edition of Allen's "Commercial Organic Analysis" (p. 67).

"Pharmaceutical Camerist" communicates several useful notes on photographic matters which are on p. 59.

Cod-liver oil is rising in price because this season's output at the Lofotens is under the average. The position is discussed on p. 62.

The finest set of alcohol-tables ever compiled is promised by Sir Edward Thorpe to replace those now in use for fiscal purposes (p. 65).

Dr. J. C. McWalter has given Dublin chemists' assistants useful hints as to their legal responsibilities. We print his article as being of wide interest (p. 70).

Mr. Wippell Gadd is still dissatisfied with the arrangements for getting a representative of pharmacists in Parliament. He wants a Conservative candidate (p. 77).

The company and co-operative pharmacy questions have become acute in the United States. British pharmacists may gather some ideas from the situation as reviewed on p. 64.

Two interesting prescription problems have been discussed before the North British Branch (p. 66). One of them, about liberation of iodine in an iodide mixture, is commented upon editorially (p. 65).

Dr. Dobbin reports on the exercises in practical chemistry given this month. Mr. H. Brindle and Mr. W. J. Rankin Jun., are the prize-winners. "Validol," "Boiling Point," and "Litmus" lead in the tournament (pp. 44-5).

"XRAYSE II." questions if syphon-filling is so profitable for chemists as was indicated by a correspondent last week. He gives his reason why, and also reflects upon last week's prescription problem and on the harschbell (p. 61).

We review the various criticisms and observations on Messrs. C. A. Hill and J. C. Umney's proposed B.P. monographs for essential oils (p. 63). Messrs. Sachsee & Co., of Leipzig, communicate a long letter on the same subject (p. 77).

Soya bean is discussed by Mr. W. B. Cowie in an article on p. 66; "F.C.S." states that deaths of cows who eat the bean-cake are due to surfeit—not prussic acid (p. 78). The latest commercial information about the bean is given on p. 76.

The Week's News.

General news from all quarters is exceptionally full. Read from p. 45 to p. 51.

Contracts in Ireland are reported on p. 47. A page is devoted to others (p. 56).

The Carthusian monks retain the sole right to sell chartreuse in England. This is the House of Lords' decision (p. 52).

The Liverpool cod-liver oil case was decided on Wednesday. Messrs. Ayrton, Saunders & Co. were discharged from it, and Messrs. Crichton Bros., who supplied the oil, were fined 20l. (p. 52).

On the spirit-duty Mr. Lloyd George is not to be drawn (p. 51). Mr. Charles Umney says wholesalers will lose if the duty is reduced, but means are being taken to counteract this (p. 54).

Viscount St. Aldwyn has concluded his inquiry in regard to the Port of London rates. We complete our series of exclusive and special reports on this matter, which have kept the chemical and drug trades informed of what has been done at Westminster (p. 72).

Trade and Market Matters.

An American syndicate is reported to have been formed to purchase all the stocks of soya-beans in Manchuria (p. 76).

Business in drugs and chemicals is slackening off in view of the holidays, but there is a steady undertone. Cod-liver oil is a rising market. Cartagena ipecacuanha is not quite so firm, but Rio is very scarce. Cardamoms and common senna are dearer. Bergamot and orange oils, insect-flowers, and jalap are all easier. Castor oil is firmer (p. 73).

Corner for Students.

Conducted by Leonard Dobbin, Ph.D

All communications for this section should be addressed thus
"Corner for Students," "The Chemist and Druggist," 42 Cannon
Street, London, E.C."

QUALITATIVE ANALYSIS.

A MIXTURE of not more than three salts will form the subject of the next exercise in qualitative analysis. The mixture will comprise acids and inorganic bases occurring in the British Pharmacopoeia, and is to be submitted to a thorough systematic examination, all its constituents are to be detected, and proof is to be given that the substances detected are the only constituents of the mixture.

Students' applications for portions of the mixture of salts (accompanied by a stamped and addressed envelope, marked "Corner for Students" on the top left-hand corner) will be received up to Tuesday, March 29, and the samples will be posted on the following day.

Students' reports will be received up to Saturday, April 9. Each report should contain a concise account of the work done, and should include a list of the constituents detected. In this list any substance regarded as an accidental impurity should be distinguished from the essential constituents of the salts composing the mixture.

SPECIAL NOTE.—The analysis announced above forms the final exercise in the analytical tournament for the current winter session. The usual monthly first and second prizes in this series of analyses will be awarded only to apprentices or assistants who are preparing for the Qualifying examination of the Pharmaceutical Society of Great Britain or of Ireland, which fact must be attested on their reports.

REPORT ON MARCH EXERCISES IN PRACTICAL CHEMISTRY.

These exercises were designed to be capable of being easily carried out even by students who had not access to any extensive laboratory equipment. The analytical bearings of the chief points involved in them have almost all been discussed from time to time in the Corner, and for this reason we hoped to have numerous reports sent in. The response has been moderately satisfactory, twenty-one reports having been submitted, of which a fair number have obtained a relatively high proportion of marks.

As in former sessions when exercises of a similar character have been submitted to students, it has appeared on this occasion also that the experiments were very nearly always (although not invariably) carried out with minute attention to the printed directions; that the observable phenomena were described and the chemistry of the changes explained with fair accuracy; but that the bearings of the observed phenomena on qualitative analysis were, as a rule, very imperfectly appreciated. In this connection it must be said, however, that the results of Exercise I., as stated by a section of our correspondents, do not coincide with those observed in our own experiments, inasmuch as we found both filtrates to yield quite distinct precipitates (of cupric sulphide and of lead sulphide respectively) after acidification and addition of hydrogen sulphide. We have endeavoured, by slight deviations from the prescribed instructions, to obtain filtrates which did not contain traces of copper or of lead, but without success, and we are disposed to attribute the recording of a different experience by several correspondents to their having arrived at too hasty conclusions regarding non-formation of a precipitate when the formation was only slight or slow. Our experience with Exercise I., when carried out exactly as prescribed, was that a slightly but distinctly blue filtrate was obtained in the case of the cupric sulphate, which, on acidification and addition of hydrogen sulphide, gave a dark liquid from which a well-marked black flocculent precipitate of cupric sulphide soon separated, and that the filtrate in the case of the lead acetate yielded a brownish liquid which rapidly deposited a very small quantity of lead sulphide as a finely divided black precipitate.

The lessons which we desired students of analysis to learn from the several exercises were, shortly, the following :

Exercise I.—That the separation of copper and even of lead from soluble compounds of these metallic radicals is

not necessarily complete after boiling their solutions for some time with a considerable excess of sodium carbonate, and that in certain cases it may be desirable to get rid of any traces of these or of other metallic radicals precipitable in acid solution by hydrogen sulphide before proceeding to test for acid radicals.

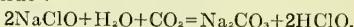
Exercise II.—That the portion of the sodium-carbonate extract which is to be examined for bromides and iodides by means of chlorine water should be acidified with hydrochloric acid before the chlorine water is added to it, since otherwise there is a risk that practically the whole of the added chlorine may interact with the excess of sodium carbonate, and that only infinitesimal quantities of bromine or of iodine may be liberated.

Exercise III.—That freshly precipitated and washed silver bromide is distinctly soluble in ammonia of about "1-in-20" concentration, and that, consequently, this reagent is of no use in delicate analytical work as a means of ascertaining whether a precipitate which is known to consist mainly of silver chloride does not contain some silver bromide also.

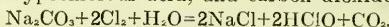
In describing the nature of the chemical changes taking place in Exercise II., none of our correspondents gave correctly the main action of chlorine on sodium carbonate. In most instances the products were stated to be sodium hypochlorite, sodium chloride, and carbon dioxide :



That this is not correct might have been inferred from the fact that moist alkali-metal hypochlorites yield carbonates and hypochlorous acid by interaction with atmospheric carbon dioxide :



The action of chlorine on sodium carbonate really consists, for the most part, at least, in the formation of sodium chloride, hypochlorous acid, and carbon dioxide :



PRIZES.

The first prize for the best report has been awarded to HARRY BRINDLE, 13 St. Helen's Road, Bolton.

The second prize has been awarded to

W. J. RANKIN, Jun., c/o R. Morrow, 25 Corn Market, Belfast.

First Prize.—Any scientific book that is published at a price not greatly exceeding half-a-guinea may be taken as a first prize.

Second Prize.—Any scientific book which is sold for about five shillings may be taken as a second prize.

The students to whom prizes are awarded are requested to write at once to the Publisher naming the book or books they select.

MARKS AWARDED FOR ANALYSES.

1. Correspondents who are unqualified:

H. Brindle (first prize) ...	97	Radium ...	...	...	...	66
W. J. Rankin (second prize) ...	90	C. G. Ostler ...	...	...	...	63
Rex ...	88	R. C. P. ...	...	...	...	59
A. F. ...	76	Rob Roy ...	...	...	...	57
Krypton ...	73	Neptunia ...	...	...	...	51
Crumier ...	70					

2. Correspondents who are qualified, or who have not indicated that they are unqualified:

Boiling Point ...	86	M. C. Stones ...	...	...	...	69
Cobalt ...	85	Toxin ...	...	...	...	56
Drumsheugh ...	84	Xenon ...	...	...	...	79
Labore ...	57	Xylem ...	...	...	...	83
Nitrax ...	94					

H. BRINDLE.—After the precipitation of lead as chloride by means of hydrochloric acid, and filtration, the filtrate will always give a precipitate of lead sulphide on the addition of hydrogen sulphide provided the liquid is cold and the concentration of the acid present is sufficiently small. See the general remarks regarding the action of chlorine on a solution of sodium carbonate. Your report is excellent.

W. J. RANKIN.—Note that the odour which you ascribe to sodium hypochlorite is that of hypochlorous acid. The odour given off from bleaching-powder on simple exposure to the air is due to hypochlorous acid liberated by interaction of the hypochlorite with atmospheric carbon dioxide.

A. F.—The precipitate of cupric hydroxycarbonate does not, on heating, pass through the stage of red cuprous oxide on its way to the black cupric oxide or oxyhydroxide.

KRYPTON.—The change produced, to some extent, by the interaction of sodium carbonate with the water in which it is dissolved is hydrolysis, not dissociation.

POLONIUM.—It was intended that Solution D should be prepared from dried sodium carbonate, and that in Exercises I. and II. sodium carbonate should be used in considerable excess. See the general remarks for the correct interpretation of Exercise II.

R. C. P.—The fact that you obtained even a slight darkening on adding hydrogen sulphide to the acidified filtrate from the copper-oxide precipitate in Exercise I. showed that all the copper had not been precipitated.

ROB ROY.—You have omitted throughout to make any reference to the bearings of the exercises on analysis, although these are pretty obvious in some cases at least.

NEPTUNIA.—“Chlorine water” which gave a green precipitate with the still alkaline filtrate in Exercise II. stands in need of overhauling. See the reply immediately preceding.

BOILING POINT.—You are under a misapprehension in supposing that the original precipitate of silver bromide in Exercise III. could contain more than a minute trace of silver sulphate: the large excess of potassium bromide present in solution would rapidly convert any added silver sulphate into silver bromide, owing to the much greater insolubility of the latter.

DRUMSHEUGH.—When you were in doubt as to whether you had quite accurately followed the instructions regarding Exercise I. (a), you ought to have repeated the very simple experiment before arriving at any conclusion respecting it.

LABORE.—It does not appear from your report that you boiled the mixture obtained on adding cupric-sulphate solution to sodium-carbonate solution in Exercise I.

M. C. STONES.—You represent sodium-hydrogen sulphate as produced by the interaction of sodium carbonate with magnesium sulphate in Exercise II.; but sodium-hydrogen sulphate could not exist in solution along with the sodium carbonate, which, as a very simple calculation would have shown you, was in large excess. Then you represent the action of chlorine on sodium hydroxide in the same exercise, but it was sodium carbonate which was present in the solution.

TOXIN.—The precipitates obtained by the interaction of sodium carbonate with cupric sulphate, lead acetate, and magnesium sulphate are all hydroxycarbonates, not simple hydroxides. See also the reply to “Rob Roy.”

XENON.—You write about the final silver precipitate in Exercise III. as if it consisted of silver chloride, due to chloride present, as impurity, in the potassium bromide you employed, and your discussion of the bearings of the exercise on analysis is based upon the assumption that it was silver chloride. We cannot, of course, assert that your potassium bromide was free from chloride, but if you had used perfectly pure bromide the phenomena observable in the exercise would not have differed in any material way from those which you did observe. Pure silver bromide is quite sensibly soluble in 1-in-20 solution of ammonia.

XYLEM.—The brisk effervescence of the filtrates in Exercise I. when mixed with hydrochloric acid showed, of course, that the sodium carbonate had been employed in considerable excess; a very simple calculation would have shown that large excess was prescribed in the instructions as printed.

J. MACBRIDE.—The resorcin test for a tartrate consists in mixing a minute quantity of the solid to be tested with twice its bulk of resorcin, adding 2 c.c. of concentrated sulphuric acid, and heating gently. When a tartrate is present, a bright red coloration is produced.

THE TOURNAMENT.

The results of this month's exercise have caused some changes in the order of the names of the students who have attained the higher places in the tournament list. The subjoined list contains the aggregate scores for the five exercises to date of the eight students who have obtained the highest totals. The April exercise, announced above, is the last of the present tournament series, and the best efforts to maintain or to improve their positions may be looked for on the part of the students immediately concerned:

Validol	...	...	450	A. F.	...	...	...	388
Boiling Point	...	...	436	Neptunia	...	...	...	388
Litmus	...	...	434	Radium	...	...	...	384
Rob Roy	...	...	402	Cobalt	...	...	...	378

No one can have observed the attitude of the Apothecaries' Society without having grave apprehensions for the future of pharmacy as represented by the Pharmaceutical Society. That attitude was well expressed by Mr. A. Mowbray Upton in November last at a meeting of the Association of Certified Dispensers. According to him, “scientific dispensing and pharmacy” are the province of the Apothecaries' Society, while the Pharmaceutical Society will look after the trade interests of the sellers of drugs and scheduled poisons.—*James Grier, M.Sc.*

English and Welsh News.

When sending Newspapers containing Trade news to the Editor please mark the items.

Brevities.

A very promising Local Parliament has just been formed at Felixstowe, with 270 members. The Liberal ministry includes three local chemists—Mr. Arthur Pain, J.P., Mr. F. G. Brice, and Mr. H. F. Douthwaite.

Mr. A. Davidson, chemist and druggist, 45 Market Place, was awarded a third prize in a window-dressing competition held at Trowbridge last week for a window dressed principally with cod-liver oil, with a novel moving seascape in the centre.

The following quantities of disinfectants were used by the Blackburn Health Department during 1909: Chloros, 1,560 gals., izal, 60 gals., chloride of lime, 3 tons 7½ cwt., sanitary dry lime, 8,000 bags (7 lb.), carbolic-powder dredgers, 145 gross. The total cost was 375*l.* 5s. 9d., compared with 338*l.* 8s. 11d. in 1908.

The Berwick-upon-Tweed Guardians on March 15 referred back to the House Committee their recommendation that dressings should be obtained from wholesalers, while drugs and medicines, according to prescription, be obtained from local chemists. Mr. T. Thompson considered the Guardians should obtain all the goods from retail chemists.

A lady's black coat and straw hat were found on the beach at Dover on March 20 containing in a pocket a packet of potassium ferrocyanide bearing the label of Goddards, cash chemists, 94 Lordship Lane, East Dulwich. A letter from “Valerie” to “Victor” was pinned to the hat. A search is being conducted on the foreshore for the victim of the supposed tragedy.

The winners of the window-dressing competition in connection with the Nelson show week was announced at a fraternal gathering of the local tradesmen on March 22. Of the chemists who competed in the “things to use” section, Mr. Hartley (of Hartleys, chemists), Railway Street, Nelson, obtained the first prize—a silver cup. Mr. Stanworth secured the second award and Mr. Heys the third.

A police-court charge, at Bishop Auckland last week, against Mr. W. H. Iley, chemist and druggist, was dismissed. Mr. Iley, it was stated, had agreed to purchase a quantity of chemists' goods from Mr. I. V. Goodswen. He called for them when the prosecutor was out, and is stated to have broken into the house and taken the goods away. The magistrates held that there was no evidence of burglary or felony.

The Blackburn Medical Officer (Dr. Greenwood) states in his annual report that “the greatest difficulty” has been met with in endeavouring to cause the long-tube bottle to be discarded. “In a large number of cases where a proper form of hygienic bottle has been in use for a short time, the mother has again reverted to the long-tube bottle, perhaps at first for the night-time only. This change, however, has been fatal, and has caused the hygienic bottle to be entirely discarded.”

An outbreak of fire occurred on March 17 about 7.30 p.m. under the railway arch in Sea Coal Lane, Farringdon Street, London, E.C., used as a stores by Messrs. Barclay & Sons, Ltd. Considerable difficulty was experienced in dealing with the conflagration owing to the narrowness of the thoroughfare. The S.E. & C.R. train service to and from Holborn was suspended temporarily, but the flames were extinguished before the structure was endangered. The damage done amounted to about 10,000*l.*, and is covered by insurance. The main building was practically untouched. A C. & D. representative was informed on Monday that business had resumed its normal course, no inconvenience being experienced beyond a few lines being temporarily out of stock.

Sale of Food and Drugs Acts

The Walsall analyst reports that all the following samples examined during the past month were genuine: Castor oil 2, camphorated oil 2, and olive oil 1.

The Westminster analyst reports that four samples of boric ointment and two samples of olive oil which he examined were all genuine.

Birmingham Notes.

Mr. J. Cattell, of Patrick Farm, Hampton, has had good luck with his lambs this year. One of his sheep gave birth to four lambs last Sunday, and both mother and family are doing well. This gentleman had a pharmacy at Knowle, and has relinquished it for the more pleasant pursuits of farming.

The boiling over of a jar of turpentine and beeswax placed on the hob of the kitchen fireplace at the Birmingham Homoeopathic Hospital, Easy Row, on March 18, lead to an outbreak of fire. The clothing of Sarah Talbot (56), employed as a cook, became ignited, and the poor woman was so badly burnt that death resulted in a few hours later. The hospital staff succeeded in extinguishing the flames before the arrival of the fire-brigade.

Mr. George Arthur Pryce, of Springfield Road, King's Heath, who went out to Canada a few weeks ago as representative of Messrs. Philip Harris & Co., Ltd., chemical and physical apparatus manufacturers, Edmund Street, at a trade exhibition at Halifax, N.S., has died there of pneumonia. A very large concourse of mourners attended King's Heath Parish Church on Sunday morning, when a memorial service was held. Almost all the staff of Messrs. P. Harris & Co. attended.

Commercial Travellers' Benefit Society.

At a meeting of the Leeds branch on Saturday, March 19, the Hon. Secretary (Mr. A. H. Walton) reported that, after eight years' labour throughout the Kingdom, the Society has distributed 14,172*l.* in sick pay, and now have 55,088*l.* accumulated funds, with a membership of 2,626 travellers, holding 9,018 shares. The funds had been taken advantage of by the members in monthly repayment mortgages, and apportionments had had 4 per cent. interest added. This year each member per share will have apportioned 1*l.* 7*s.* 9*d.*, which is the highest paid by any similar society in the world. Nominations for the annual conference to be held at Edinburgh during the Easter holidays were made.

The Public Weal.

The following gentlemen have been elected to serve upon local Boards of Guardians :

Mr. Wm. Adams, chemist and druggist, 191 Dudley Road, Birmingham.

Mr. J. W. Dorran, chemist and druggist, Stretford (Barton-on-Irwell Guardians).

Mr. J. C. Robson, Ph.C., Coatham, to the Guisborough Guardians.

Mr. Wm. Shakespeare, Ph.C., of Russell House, Walmsley, Aston Manor.

Mr. J. S. Shearman, chemist and druggist, King Street, Yarmouth.

The following chemists have been elected to serve upon local public bodies :

Mr. G. E. Guest, chemist and druggist, Ackworth, to the local Parish Council.

Mr. J. Casterton, chemist and druggist, to Market Rasen, Urban District Council.

Mr. Alfred Wm. Brooker, chemist and druggist, to the Twyford Parish Council.

Mr. Wm. Oldershaw, chemist and druggist, Strelley, to the Basford Rural District Council.

Mr. J. A. Barlow, chemist and druggist, Westgate, Burnley, has been returned unopposed to the Habergham Eaves Rural District Council. The office carries with it the Poor-law Guardianship for the district, which Mr. Barlow has represented for many years.

Municipal Trading.

The Huddersfield chemists are protesting against municipal trading in the form of supplying tooth-brushes at 1½*d.* each. The Town Council resolved recently to make a contract for the supply of 5,000 tooth-brushes outside the town with a similar order to follow. It is alleged that the brushes have been supplied to the children under cost price. The local Chamber of Trade is taking steps in the matter, a deputation of tradesmen being appointed to await upon the Education Committee. Dr. Moore, the medical officer for the schools, on whose representations the education authority instituted the supply, contends that the tooth-brush scheme is not municipal trading. The chemists, while not denying that dental cleanliness is an important matter, state that they have not been asked to tender for the supply of the brushes, and their complaint is that the

Corporation should constitute itself a tooth-brush dealer "at such cutting prices." The hatters have also a grievance in the secondary school-teachers supplying special caps.

Sheffield Notes.

Professor W. Palmer Wynne has presented a handsome challenge shield to encourage Association football among the students of the Sheffield University. The medical students have won it this season.

Mr. G. T. W. Newsholme, who has held a prominent position as a guardian of the Sheffield Union, has consented under considerable pressure, to allow himself to be nominated for re-election. He has been in very indifferent health for some time and was desirous of relinquishing the work, but both political parties have united in urging him to continue in office.

Lecturing on "Is Life without Disease Possible?" Dr. Cavanagh said on Monday evening : "Happy is the nation, if there is one, without a bottle of medicine in its boundaries." Amongst other striking and original things, he said that the doctor as we see him too often to-day is obsolete, an anachronism. He should not be allowed to sell bottles of medicine at all; nor should the chemist, who is a greater delinquent still, for the doctor does know something of the action of drugs or poisons on the human body. All efficient drugs are poisons, and act by being poisonous. Iron and hypophosphites, with a few others, are not drugs, but merely food in special forms. The proof of the toxicity of our drugs is that the body clears them out totally and as rapidly as possible. Many people would be better dead, and by our drugs and so forth we are making chronic invalids live as long as the moderately healthy.

Irish News.

When sending Newspapers containing Trade news to the Editor please mark the items.

Brevities.

Mr. Charles McMullan's tender to the Killala Guardians for the analysis of drugs at 2*s.* 6*d.* per sample has been accepted.

The Listowel (Co. Kerry) Guardians and District Council have passed a resolution of sympathy with the widow of the late Mr. J. Kissane, Tipperary, and the meeting was adjourned to show appreciation for the public services of the late Mr. Kissane.

Many of the Boards of Guardians are concerning themselves with the question of the supply of Irish-made goods by the contractors for drugs and surgical instruments. The Local Government Board have written to several of the Boards of Guardians warning them of the consequences of not accepting the lowest tenders.

At Co. Antrim Assizes in Belfast last week, Mr. J. Sanderson, Ballymena, applied for exemption from service as a petty juror. The question was raised as to whether the exemption allowed by law to pharmaceutical chemists applied to registered druggists, but the judge eventually granted Mr. Sanderson's application.

The services of Lady Baxter, wife of Sir Wm. J. Baxter, J.P., pharmaceutical chemist, Coleraine, are greatly in demand at present as a bazaar opener. On Friday last her ladyship performed the opening ceremony at a large bazaar in Belfast, and the previous week she acted in a similar capacity at another sale of work.

Scheduling Ether.

At the Tyrone Assizes last week the Grand Jury passed a resolution calling attention to the unrestricted sale of ether, and recommending that the drug be scheduled as a dangerous poison, and that chemists should be compelled to keep a register of the sale. [It is already included in Part II. of the poison-schedule.—Ed.] Chief Baron Palles said he would forward the resolution to the proper quarter, with a strong recommendation that it be put into force. He was under the impression that at present there is, under an Act of Parliament, some restriction on the sale of ether, but, having regard to the evidence that had been given in one of the cases before the Grand Jury, he thought those regulations must be insufficient. He would forward the resolution to the Under Secretary.

Medicines and Surgical Appliances Contracts.

The following additional tenders have been accepted by Boards of Guardians for the supply of medicines and surgical appliances for the ensuing year :

—	Medicines	Surgical Appliances
Ardee ...	J. Clarke & Co. ...	Same contractors
Athone ...	Boileau & Boyd, 33½%	Same contractors, 37½%
Athy ...	P. N. White (Sligo), 40%	Same contractor, 40%
Ballina ...	Boileau & Boyd, 33½%	S. Connor & Son (Newry), 36½%
Ballinasloe ...	Boileau & Boyd ...	Same contractors
Ballycastle (Co. Antrim)	J. Clarke & Co. (Belfast)	Same contractors
Ballymoney ...	J. Clarke & Co. (Belfast), 37½%	Same contractors, 38½%
Bawnboy ...	Sumner & Co. (Liverpool), 33½%	J. Clarke & Co. (Belfast), 37½%
Belfast ...	J. Clarke & Co., Ltd.	Same contractors
Birr ...	Boileau & Boyd, 35%	—
Castleblayney ...	Boileau & Boyd ...	Connor & Son (Newry)
Castlerea ...	Boileau & Boyd, 35%	Adamson & Co. (Ballina), 39%
Dingle ...	J. Clarke & Co., 29½%	Same contractors, 38½%
Dundalk ...	Boileau & Boyd, 36%	Connor & Son, 38½%
Dungarvan ...	Boileau & Boyd, 32½%	Same contractors, 37½%
Enniskillen ...	Boileau & Boyd, 35%	P. N. White, 40%
Fermoy ...	Cork Chemical and Drug Co., 38½%	Boileau & Boyd, 34½%
Gorey ...	Boileau & Boyd, 35%	Same contractors, 37½%
Granard ...	Sumner & Co., 33½%	Boileau & Boyd
Irinstown ...	Sumner & Co.	J. Clarke & Co. (Belfast)
Killala ...	Adamson & Co., 38%	Sumner & Co. (Liverpool), 33½%
Kilmacthomas ...	Sumner & Co., 33½%	J. Clarke & Co., 36½%
Kinsale ...	Cork Chemical & Drug Co., 35%	Same contractors, 38½%
Larne ...	J. Clarke & Co. (Belfast), 35½%	Same contractors, 38½%
Longford ...	Sumner & Co., 33½%	Boileau & Boyd
Mount Bellew ...	J. Clarke & Co., 31½%	Same contractors, 37½%
Mountmellick ...	J. Clarke & Co. (Dublin), 33½%	Same contractors, 31½%
Naas ...	Boileau & Boyd, 36½%	Same contractors, 37½%
Rathdown ...	Boileau & Boyd, 39½%	Same contractors, 38%
Rathdrum ...	Boileau & Boyd, 35%	Same contractors, 37½%
Thurles ...	Boileau & Boyd, 32½%	Same contractors, 37½%
Tipperary ...	J. Clarke & Co. (Dublin)	—
Trim ...	J. Clarke & Co., 32½%	Boileau & Boyd, 37½%
Tuam ...	Boileau & Boyd, 33½%	Adamson & Son (Ballina) 39%
Tullamore ...	Boileau & Boyd, 35%	—
Waterford ...	Boileau & Boyd, 36%	J. Clarke & Co. (Dublin), 37½%

Scots News.

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Aberdeen.

Complimentary reference was made to the pharmacy classes at Robert Gordon's College by Mr. G. Duncan Bowie (Chairman) at the dinner of the "old boys" of the College, held in Frascati's Restaurant, London.

War seems to have broken out in the local store trade. Last week the store price for Doan's Pills and Williams' Pink Pills was 2s. 1d.; one shop reduced this to 2s., as advertised in the local papers, followed next night by an opponent at 1s. 11½d.; this was met with 1s. 11d. Quinine was also the subject of similar tactics : 1s. 9d. an oz., 1s. 6d. an oz., 1s. 3d. an oz., and now 1s. an oz. Cascara tablets, 25 in bottle, 2½d.; 100, 6d.

Glasgow and the West.

Mr. Thomas Hunter, chemist and druggist, has acquired the business of Dr. M. Dunning, 45 Neilson Street, off Paisley Road, Glasgow.

Messrs. Huggins & Co., chemists, 298 Sauchiehall Street, Glasgow, are removing in May to more central premises at 6-8 Wellington Arcade, off Sauchiehall Street.

Mr. John Gilchrist, chemist and druggist, Rutherglen Road, Glasgow, obtained the winter session medals for zoology and chemistry at St. Mungo's College.

At Dumfries on March 17, James Scott (18) and George Edgar (17) were sentenced to sixty days' imprisonment for breaking into the shop of Mr. George Little, chemist, Moffat, and stealing 2*l.*

Edinburgh.

Edinburgh dairies are commencing to advertise the sour-milk treatment in local newspapers.

At the meeting of the C.A. and A. Association on Wednesday evening Mr. Wm. Duncan, Ph.C., F.C.S., had sixteen dispensing problems to solve. The members had a week to consider them, as they were printed and sent by post to each.

In the Court of Session on March 19, before Lords Kinnear, Low, and Dundas, it was intimated that the action had been settled in which Samuel E. Thresher, Leven, sued the Hygienic Institute, Elmbank Crescent, Glasgow, for 500*l.* damages for the death of his wife. (*C. & D.*, January 22, p. 105).

At a meeting of the creditors of Mr. William Ogilvie, chemist, 39 Forrest Road, held last week, it was reported that there are no trade creditors. The winding-up of the estate is occasioned by the unpaid portion of a loan being called up owing to the death of the lender. Messrs. Peden & Henderson, chartered accountants (the trustees), are realising the estate, and the creditors have agreed to accept a composition. The stock is being sold off "at half price."

Dr. George Gray Buchanan, who has been appointed county and district medical officer of health for East Lothian, and medical officer for the inspection of school children under the Education Act, at a salary of 400*l.* per annum and 100*l.* for travelling expenses, is a son of Mr. D. Buchanan, pharmacist and postmaster, Kirriemuir. Dr. Buchanan is a graduate in medicine, surgery, and science of the Edinburgh University, and D.P.H. of Cambridge. He was formerly assistant to the Professor of Public Health in Edinburgh University, and since 1905 has been assistant medical officer in the counties of Edinburgh, Linlithgow, and Peebles.

French News.

(From the "C. & D." Correspondent.)

LECTURE ON PASTEUR.—On Friday afternoon, March 18, an interesting lecture on "Pasteur's Life and Work" was given at the French Y.M.C.A., Paris, by M. René Vallery-Radot.

COMMITTED FOR TRIAL.—The ex-pharmacist Lapicque, who was arrested some weeks ago, is committed for trial on the charge of "violence and illegal exercise of medicine." A young woman who was arrested as an accomplice has been discharged.

AN INTERNATIONAL CONGRESS AND EXHIBITION OF PHYSIOTHERAPY will be held in Paris from March 29 to April 3, and return tickets from London to Paris at special rates are to be issued by the South-Eastern and Chatham and the London, Brighton and South Coast Railways. Particulars can be obtained from Monsieur H. Saunion, 19 Bartholomew Close, London, E.C.

THE CHEMISTRY OF ABSINTHE.—Professor Moureu, of the Paris Superior School of Pharmacy, read a paper at the Academy of Medicine recently on the chemical composition of absinthe. He points out that thujone is the noxious principle of commercial absinthes and bitters. He therefore considers that if a law be voted against the use of absinthe it should cover all liquids containing thujone.

PHARMACY AND THE UNIVERSITY OF PARIS.—The Council of the University of Paris is composed of two members per

faculty, chosen by periodical re-election for three years. Professors Bouchardat and Gautier have thus been recently chosen to represent the Paris Superior School of Pharmacy. The Director of the School is in virtue of his office a permanent member of the Council, but the newly-elected body has expressed its appreciation of M. Guignard's talents and authority by selecting him as Vice-President.

A MOTOR-CAR IN A PHARMACY.—Careless steering sent a motor-car (which had just come down the Fontainebleau Hill at breakneck speed) flying into the shop-front of M. Condou, pharmacist, at Ris-Orangis. The entrance-door was literally split into fragments, and broken glass flew everywhere. The car was so badly damaged that it had to be towed to the nearest garage, and the four travellers were badly bruised. They declined to give their names and addresses, but settled up for damages before leaving the establishment, making, as one of them remarked, both a "crash" and a "cash" transaction.

PARIS SOCIETY OF PHARMACY.—A general meeting of this Society was held recently regarding the question of modifying its statutes and regulations. Professor Bourquelot called to mind that the text of the proposed changes had been approved by the members as far back as 1901, and, complying with the procedure necessary in such cases, the new statutes were sent to the Ministry of the Interior for approval. As no reply was received, M. Bourquelot called at the Ministry to apply for documents, but found they had been lost or mislaid. The work has consequently been done again, and the general meeting was called to approve it, with the hope of a better result to its labours from official sources.

THE DRUGGIST IN BALZAC'S FICTION.—An old play of Balzac's entitled the "School for Households" was revived last week at the Odéon Theatre, Paris. It was written as far back as 1837, and contains a character portraying "M. Duval, a druggist in a large way of business in the rue des Lombardes," the street in Paris which has long been famous for its pharmacists and drug warehouses. The *beau rôle* in the play is given to a young shop girl, but the druggist is represented as solemn, illiterate, vain, hypocritical, underhand, and a few other things besides, but trembling like a leaf when caught napping. It is certainly not a flattering portrait, but, then, fiction has its requirements, which may not be denied.

CUSTOMS TARIFF.—The discussion on the Customs tariff is still taking place in the Senate. On the question of the tariff on oil-seeds, M. Rousé presented an amendment on the tariff with a view to giving further protection to the home cultivation of colza, but he withdrew it. A long discussion took place regarding the duty on olive oil, which can be imported for soap-making, if denatured, at lower rates. The charges on denatured cotton and soya oils were also discussed at some length. March 17 was taken up with a debate on the sulphur duties, the trouble being that there is a foreign firm of sulphur refiners established in France. Half the imported sulphur (120,000 tons) is used by the vine growers. Chemical products were discussed on March 18, among the new duties being one on fluorides (15f. general and 10f. minimum).

DOGS' AND CATS' SPRING MEDICINES.—"Dr. Pamplemousse" publishes in the "Journal de la Santé" some notes on "Animal Hygiene." We have most of us observed, at certain periods, our dog eating grass or our cat taking readily to a vegetarian régime, which seems contradictory to carnivorous instincts. The doctor has seen his pets "go one better," his canine companion lapping salt water when by the seaside (an idea borrowed from the "effervescent saline" indulged in by human patients); while Grimalkin, after a record mouse-hunt of some similar relapse into primeval and carnal habits, re-establishes the balance by free indulgence in salad, asparagus, melon, and other crumbs which fall from the doctor's table in response to plaintive appeals. He quotes Bruin in search of honey, and the "grape cure" which Reynard has practised since the days of Aësop, as a development of the same idea, adding that the weasel and its bloodthirsty tribe often scale a plum or cherry tree

in search of Nature's form of "fruit salt," and even birds of prey occasionally indulge in similar diet.

L'AFFAIRE DE VAUGIRARD.—As the first step in the action for divorce, which Mme. Parat, the wife of the pharmacist of the rue de Vaugirard, Paris, has commenced against her husband, they were confronted last Saturday, in the presence of the Judge in Chambers, with a view to endeavouring to effect a reconciliation between the parties. This is one of the requirements of French law, and is the first step in an action for divorce, as the Judge can interview the husband and wife in a more private manner than in open court, which frequently enables him to bring the parties together again by a little paternal advice. On this occasion, however, he was unsuccessful. Both parties were assisted by counsel, and the interview lasted nearly an hour, the financial affairs of the family being the principal point involved. Counsel for Mme. Parat contended that by reason of her husband's imprisonment her position became tantamount to that of a widow, and consequently she had a legal right to conduct her husband's business for one year with the aid of a qualified manager. The Judge accepted this argument, and granted an order accordingly. This is believed to be the first time in French pharmaceutical jurisprudence that "imprisonment" and "death" have been considered as identical under the pharmacy laws. The regulation here is that a pharmacy can only be conducted by the owner, who must be a qualified man, and in theory no medicines or drugs can be supplied in his absence. It is needless to say that this practice is frequently honoured in the breach. The text of the law under which Mme. Parat's counsel pleaded is from Article 41 of a decree of Thermidor 25, Year XI. of the first French Republic, and reads as follows: "On the decease of a pharmacist, the widow may continue the business for a period of one year, on the condition of presenting an assistant, of at least twenty-two years of age, at the pharmacy school of the district."

Colonial and Foreign News.

"ASPIRIN."—According to the "Apotheker Zeitung," Messrs. F. Bayer, of Elberfeld, are taking proceedings against sixty Budapest pharmacists for selling acetyl-salicylic acid as "aspirin." A fine of 200 kr. has been paid in one case. The "Pharmaceutical Post" reports that the Hungarian Pharmacists' Association are to open negotiations with the Elberfeld firm with a view of effecting an agreement.

SPIRIT FROM WOOD PULP BY-PRODUCTS.—The "Frankfurter Zeitung" reports the discovery of a process by a Swedish chemist for producing alcohol from the waste products obtained in paper-making. The calcium sulphite liquor which has been used in the process contains carbohydrates, which appear to be capable of saccharification by acids and the products capable of fermentation, resulting in the production of alcohol.

PROPRIETARY MEDICINES IN PARAGUAY.—The British Board of Trade are in receipt of a copy (in Spanish) of regulations providing that the Paraguayan Customs authorities shall not permit the entry of medicinal specialities, whether for internal or external use, for sale within the country, unless they have been authorised by the National Health Department of Paraguay. The qualitative formulae of such specialities must be clearly printed on the label of the receptacle, and indicate the quantity of active substances contained therein.

PHARMACISTS IN RUSSIA.—At a recent meeting of the St. Petersburg Pharmaceutical Association the new pharmaceutical decree was favourably commented on, but it was felt that there should be greater facilities for opening branch establishments in country districts. The demands of pharmaceutical deputies for a modification of the regulations governing the import of galenicals into Russia were disapproved, says the "Pharmazeutische Zeitung." It was complained that pharmacists receive foreign specialities sealed and labelled, and have no means of ascertaining their real worth.

South African News.

"The Chemist and Druggist" is regularly supplied by order to all the members of the seven Societies and Associations of Chemists in business in British South Africa.

Natal.

LEVER'S SOAP-WORKS.—The contractors have now commenced work on Messrs. Lever Bros.' soap-factory at Congella. It will stand on nine acres of land. The whole factory will be of brick and is expected to be completed and in working order before the end of the year. It is understood that Mr. Tillotson, the managing director, has already selected land in the vicinity for the establishment of a model settlement for the employees—a second Port Sunlight. The water for the works will be supplied by the Durban Corporation, who recently, owing to the application of Messrs. Lever Bros., made a reduced tariff on water for industrial purposes, which will allow large consumers a rate of 10d. per 1,000 gals., instead of 1s. As the requirements of the new soap-factory will be considerable, an auxiliary supply will be obtained by constructing a large caisson in the ground penetrating to 2 ft. below water-level in the bay.

THE CHLORODYNE CASE.—On February 21 Mr. B. C. Clarence, Chief Magistrate of the Durban City Court, gave judgment in the case in which Messrs. Stantial & Allerston sued F. W. Bevis for 3l. 8s. 6d. for goods supplied, and the defendant Bevis (plaintiff in reconvention) sought to obtain 300l. damages for neglect and improper supply by defendants to plaintiff's wife of chlorodyne in excessive quantities, in consequence of which plaintiff's wife became insane (see *C. & D.*, March 19, p. 430). The hearing of evidence and addresses of counsel occupied the Court several days, and the Magistrate took time to consider his judgment. He gave this in a lengthy speech, the net effect of which was that he awarded Messrs. Stantial & Allerston 3s. of the 3l. 8s. 6d. sued for, with costs; the balance of 3l. 5s. 6d. was for chlorodyne, which he held was not domestic necessities, and as the sales were not to Mr. Bevis but to his wife, Mr. Bevis could not be legally responsible. As to the action for damages against Messrs. Stantial & Allerston, the Magistrate held that there was not that negligence on the part of the firm to entitle Mr. Bevis to succeed in making them responsible for neglect of a moral and legal duty; therefore he entered judgment for Messrs. Stantial & Allerston, with costs. The Magistrate's judgment has caused much talk locally, and the newspapers have said a lot about it. In the course of his remarks Mr. Clarence said :

"I do not find that the statute law has in effect abrogated the common law, and the rule governing chemists in the sales of chlorodyne is the same rule (or no rule) which governs the coloured ignorant or Arab storekeeper, simply because they are all vendors of proprietary medicines. To many whom the law unfortunately allows to be vendors of chlorodyne the danger of its abuse is unknown, and by statute its use has been placed beyond the control of those whom common sense would regard as the only fit persons to be sole vendors of a poison so seductive, insidious, and pernicious. . . . Though the use of its known ingredients, which are poisons, are to some extent controlled by statute, the non-observance of which, if resulting in injury to another, would render a vendor liable, I cannot but think that though the rule is not entirely removed by the statute it is, at all events, very much relaxed and modified in its principle, and as the victim had a free and unrestrained right by statute to purchase these three poisons when obtained as a proprietary medicine from all traders I think the responsibility of the defendants, though they are chemists, is far too remote to make them liable in damages for an abuse of which the woman was guilty, free from and beyond the legal duty of defendants' control. I cannot find or hold, therefore, that there was that negligence or culpa on the part of defendants to entitle plaintiff to succeed in making defendants responsible for neglect of a moral and legal duty, which is here sought to be placed upon them in common law."

The local papers blame chemists for selling so much chlorodyne to persons habituated to its use, and one of the papers interviewed Mr. G. A. Champion on the subject. When the mail left the predominant opinion was that the Government is largely to blame for refusing the repeated demand of chemists and medical men that the

sale of proprietary articles containing poison should be on the same footing as other poisons. At present they may be sold by any shopkeeper.

Orange River Colony.

AN EXAMINATION FOR CHEMISTS AND DRUGGISTS was held in Bloemfontein by the O.R.C. Medical and Pharmacy Council on February 22 and 23. Two candidates presented themselves, and both were unsuccessful. Mr. W. S. Westlake and Dr. W. Johnson, both of Bloemfontein, were new additions to the Board of Examiners.

Transvaal.

CURE ALLS.—A Johannesburg paper states that at present the Reef is overrun with dispensers of rubbishy concoctions which, thanks to the credulosity of a portion of the population, are readily disposed of, and afford a steady source of income to swindlers who line their pockets at the expense mainly of the poor and ignorant, and are enabled to live in comfort while undermining the constitutions of their dupes.

EUCALYPTUS OIL.—Mr. Alexander Rennie, chemist and druggist, Johannesburg, has been awarded a silver medal by the Witwatersrand Agricultural Society for his exhibit of eucalyptus oil. Mr. Rennie has been distilling eucalyptus oil for three or four years in the vicinity of the Welge River, where he purchased a plantation of eucalyptus trees. He moves the still hither and thither on a waggon drawn by eighteen oxen, which form the usual means of locomotion in these parts. During the last "trek" the waggon got snowed up in the phenomenal snowstorm which



This is the centre part of the exhibit. The whole looked like the proscenium of a theatre.

passed over the Southern Transvaal in July, and the native drivers took refuge inside the still. In the wet season distillation almost comes to a standstill. After the oil has been distilled from the leaves, the refuse of leaves piled up outside sometimes quite obscures the still from view. Mr. F. Carnegie has charge of the distillation, and the oil is sold pretty freely among local chemists. At the Horticultural Show last Christmas Mr. Rennie also obtained the silver medal for an exhibit of "Horticura," a remedy for plant diseases.

CRICKETING CHEMISTS.—The visit of the M.C.C. team to the Transvaal roused the enthusiasm of cricketing chemists to such an extent that a match was arranged and took place at Mayfair, Johannesburg, on February 20. The contesting elevens were Messrs. Turner & Co., captained by Mr. W. B. Marshall, and the "Rest," captained by Mr. H. H. Burrowes. The "Rest" won the toss and batted first, running up a score of 102, the principal scorers being Sutton (33), Mitchell (21), and Burrowes (14). The wicket-keeping by Marshall was so good that only nine extras found their way to the scoring-sheet. After an enjoyable luncheon

Turner's eleven had their innings. Some fast scoring was witnessed while Marshall and Mills were associated. The innings closed for 111, Mills (21), Marshall (16), Veitch (12), and Christie, Jun. (12, n.o.), being top scorers. In the second innings the bowlers held the upper hand, the "Rest" being dismissed for 65, of which Sutton made 26 and Burrowes 10. Turner's men wanted 57 to win, but fared



THE CRICKET PARTY.

no better, their total only reaching 42, leaving the "Rest" winners of a most exciting game by 15 runs. Mills was the only one to reach double figures, and Burrowes obtained 5 wickets at a small cost. Mr. R. McGeorge (Hon. Secretary Pharmaceutical Society) was scorer. Among the ladies present were Mrs. Johnston (wife of the President of the Pharmaceutical Society), Mrs. Christie, and Miss Marshall, who took snapshots of the players, one of which we reproduce.

Natal Pharmacy Board.

A MEETING was held in the Board Room, Pietermaritzburg, on January 13. All members of the Board were present. The President (Mr. F. E. Turner) reported on the examination held that day. There were seven candidates, and Messrs. Robert Bridge and Frank Lord Dawber passed. The other five candidates failed to satisfy their examiners. It was resolved that the Colonial Secretary be requested to restore the name of Mr. John Horsley Williams to the Natal Pharmacy Register; also to request the Colonial Secretary to have a registered letter sent to every person on the Natal Pharmacy Register, to inquire if he has ceased to practise or has changed his residence. If no answer shall have been returned to such letter within six months, it shall then be lawful to erase the name of such person from the register. The report of the Board for the year ending December 31, 1909, was considered and passed. This report gave particulars of the meetings of the Board held in January, April, July, and October, at which fourteen candidates were examined for registration as chemists and druggists; two passed and twelve failed. Six chemists were registered on production of the Minor (G.B.) or other qualifying certificates. At the April meeting the Secretary (Mr. C. A. Fawcett) was instructed to write to the Pharmaceutical Society of Great Britain as to reciprocity within the Empire for chemists duly qualified in any part of the same, but up to the close of the year the only reply to hand was an acknowledgment of the letter saying that the matter was engaging their attention. Fees amounting to twenty guineas were received in examination-fees. Three certificates were granted, and fees amounting to twelve guineas paid, while five guineas was received for registration without examination, upon production of certificates, and the proceeds of the whole were handed to the accounting officer of the Colonial Secretary's Department. During the year a class for instruction of intending candidates for examination was inaugurated by the Business College in Pietermaritzburg, and the Board understand that the work will be taken up by the new Technical Institution, thus supplying a want, which has long been felt, for greater facilities for pursuing these studies. No further action has been taken during the past year in the direction of amending the present Pharmacy Bill, and it is probable that this matter will now stand over until such time as the Union Parliament may bring in a Bill for the whole of South Africa. It was resolved that the President should send a letter to all the Pharmacy Boards of South Africa *re* the form legislation touching chemists should take in the Union Parliament.

Natal Pharmaceutical Society.

A MEETING was held at Mr. G. Stuart Jones' rooms on February 23, when Messrs. Edwards, Hamlin, Wysall (Redhill), Firth (Vice-President, in the chair), Gale, Champion, Jones, Murray (Turner & Co.), Dunkerton (Lennon, Ltd.), Inman (Lennon, Ltd.), Forth and Anderson (Hon. Secretary) were present. Mr. F. C. Stopforth was elected a member, and the resignation of Mr. D. L. Petrie, who has gone to Cape Town, was received.

THE ANNUAL REPORT of the Pharmacy Board was read. There was very little comment on it. Mr. G. A. Champion stated he was surprised that the new Board had not pushed forward an amending Bill during the last session of Parliament.

PRICE-LIST.—The desirability of retaining a universal price-list was introduced by the Chairman, who showed the advantages of having a list, and regretted that the one which was started four years ago had fallen through by one firm withdrawing from it. A spirited discussion took place, and it was suggested that a document be again drawn up and signed by all the firms in business; but when it was found that Messrs. Lennon would not sign it, the question resolved itself into a mutual arrangement, and a committee, composed of Messrs. Ryan, Jones, Murray, Forth, Gale, Williams, and Anderson, was appointed to draft a new price-list to be laid before the next meeting of the Society.

EXAMINATION.—Mr. Champion introduced the question of the qualifying examination, and took strong exception to one of the three examiners having examined a former apprentice and also a student of the Durban Technical Institute, where the examiner is a lecturer. The discussion arising out of this was heated and personal, and culminated in the following resolution being passed to send to the Pharmacy Board:

"That this meeting would call the attention of the Pharmacy Board to the impropriety of a master examining his apprentice or student *re* Technical Institute."

OTHER BUSINESS.—Mr. Dunkerton suggested that the Society should offer a prize to the best pharmaceutical student of the year. The principle was generally supported and referred to the committee for adjustment. Mr. Firth mentioned the chlorodyne case, but owing to the lateness of the hour it was decided to defer discussion till next meeting.

India and the East.

(From the "C. & D." Correspondents.)

PENANG POISONS LICENCES.—The following persons and firms in Penang have been licensed under the Poisons Ordinance, 1905:

J. M. Chalmers, 2 Bishop Street; Chan Kun Shing, 258 Carnarvon Street; Chea Cheng Lean, 11c Buckingham Street; W. F. Clarke, 37a Beach Street; Goh Taik Chee & Son, 20 Church Street; Goon Yen & Friends, 32 Beach Street; Guthrie & Co., 49 Beach Street; Ishi, 266 Beach Street; S. A. O'Keeffe, 82 Muntri Street; Sandilands, Buttery & Co., 29 Beach Street; J. E. Smith, 80 Bishop Street; A. M. Stewart, 2 Bishop Street; W. D. Wilson, 4 Beach Street; Municipal Veterinary Surgeon, Municipal Veterinary Office.

PHARMACY AND MEDICAL TUITION.—A pharmacy course is to be opened at the Medical College attached to the Tai-Han Hospital, Seoul, Corea. New pharmaceutical and medical courses are to be created at the Waseda University, Tokio. The Waseda University is the greatest private institution organised by the famous Count Okuma. The Kanazawa Medical College has issued special regulations in regard to the entrance of foreign students to the College. The graduate of any Japanese middle school and one who passed State entrance examination to the High Schools can enter the College without undergoing entrance examination.

A CHEMIST VOLUNTEER.—A few years ago Mr. W. Wilson, chemist, Rawal Pindi (then Troop Sergeant-Major, now a Lieutenant in the Punjab Light Horse), won the Newcomen Challenge Trophy, which is considered the blue ribbon of Indian Volunteering. Another chemist has now come to the fore in this crack regiment of Yeomanry—viz., Sergt. H. B. Tilden, of Messrs. E. Plomer & Co., Lahore, who has won the championship gold medal for the highest aggregate in the regimental annual rifle meeting 1909-10. He also won this shooting championship last year. Sergt. Tilden has had nineteen years' efficient Volunteer service, of which thirteen have been served with the Punjab Light Horse. Sergt. Tilden's section won the Regimental Lloyd-Lindsay Competition this year.

Our American Letter.

From an Ethical Pharmacist.

The New Pharmacy Act over which the druggists of New York State have been fighting for a year or two is now before the State Legislature. A unique feature of the Bill is this, that "the practice of pharmacy" is nowhere referred to in it. The new phrase is "the practice of pharmacology."

Decision of Importance to Pharmacists all over the country was given recently by the Court of Appeals in New York State. It seems that two or three years ago a department store clerk, not a registered pharmacist, sold some sealed bottles of tincture of arnica and spirit of camphor. The Board of Pharmacy brought suit. The defendants insisted that these articles were not "medicines" within the meaning of the law, but the Court of Appeals has now held with the lower courts against the defendants and in favour of the Board of Pharmacy. This means less unqualified competition in the future.

Our Government System is in some respects unfortunate. Each State has exclusive jurisdiction over its own internal affairs, the result being that the legislation in the forty-five or more separate commonwealths is often contradictory. Hence a movement towards uniformity. A voluntary congress to discuss the subject was recently held in the city of Washington, and among other things it was decided that the Food and Drug Acts throughout the country should be made more nearly alike and should be based more closely upon the Federal Act. Much the same decision was reached regarding State anti-narcotic laws.

The Company-pharmacy Movement threatens to be so successful, and there have been so many startling developments of late, that pharmacists are more or less worried over the situation; hence the introduction of a Bill into the New York Legislature prohibiting corporations from practising pharmacy. This is somewhat similar in principle to the type of Bill which the chemists of Great Britain endeavoured for so many years to get Parliament to enact into law. In the United States it is held to be unconstitutional, and there is very little possibility that the New York Bill will ever get out of the hands of the committee to which it has been referred.

Some Very Important Conclusions have just been reached by the City of Washington branch of the A.Ph.A. with reference to the next edition of the National Formulary. It is now held that this book shall no longer contain formulas intended to produce an imitation of well-known proprietary products. It is also held that the practice is a commendable one of making tinctures from fluid extracts—far better, indeed, than making them by maceration or percolation, as these operations are performed in the ordinary pharmacy. Whether saccharin should be used as a sweetening agent in elixirs and the like is an open question, and this has finally been referred to one of the Government departments for pharmacological investigation.

The A.M.A., A.D.S., and N.A.R.D. situation is still acute. I reported some time ago that the Philadelphia Association of Retail Druggists had seceded from the N.A.R.D. as a direct result of the charges brought by the "Journal of the A.M.A." So far, however, not one other of the 1,000 or more local bodies affiliated with the N.A.R.D. has taken a similar step. Most of them have passed resolutions expressing their loyalty, and in one or two instances the "rule or ruin" policy of the P.A.R.D. has been pretty severely condemned. The N.A.R.D. has taken the attitude of having been wronged by the A.M.A., and it has apparently decided that, since injustice cannot long prevail, the only thing to do is to "stand pat" and go right ahead as though nothing had happened.

The Air is still Full of Rumours about the expected developments of three or four of the big company-pharmacies. Once in a while a story springs up to the effect that this or that group of stores in some leading city has been or will be "benevolently assimilated" by one of the so-called "drug-store trusts." Mr. C. H. Goddard, the leading spirit of the American Druggists' Syndicate, proposes to offset the machinations of these trusts by developing a beneficent trust of his own. Thus, when some stockholder of the A.D.S. is threatened with annihilation through aggressive competition, Mr. Goddard's proposed company would take over the store and retain the former owner as manager. A committee of fifteen has been appointed to work out a scheme along this line, and it is said that the new company will be incorporated at \$3,000,000.

A Battle Royal is being fought between two of the largest interests in the retail drug field, and everybody is watching the fight with keen interest. The contestants are

the William B. Riker & Son Co., owners of a group of thirty-five or more retail stores, and Louis K. Liggett, President of the United Drug Co., a co-operative concern manufacturing the so-called "Rexall" line of specialities. Liggett began by saying that the Riker concern could no longer handle the "Rexall" line in New York City unless it trebled its volume of sales. The Riker interests retaliated by bringing action against Liggett for forming the Louis K. Liggett Co. to take over the twenty-four retail stores formerly owned by the United Drug Co. Riker declares that Liggett bought these in at a ridiculously low price, and that the stockholders of the United Drug Co. have been hornswoggled.

Westminster Wisdom.

A Record of Parliamentary Progress.

THE SPIRIT DUTY.

Mr. James Hope, M.P. for Central Sheffield, asked the Chancellor of the Exchequer the following question on Monday :

"Whether, in cases where the extra spirit-duty of 3s. 9d. per proof gallon has been, since December 4, paid as a deposit, such amount is being retained as a deposit or is being utilised by the Treasury for the financial exigencies of the moment; and whether, in the event of the fact that certain clearances have been made without such deposit being lodged, he will, in the event of such being passed as retroactive, demand interest since December 4 on such withheld deposit, and, if so, at what rate."

In reply Mr. Lloyd George said that the amounts deposited had been paid into the Exchequer. It is not proposed to charge any interest. Mr. George Younger (member for Ayr Burghs) also put a question as to the security required from those who had withdrawn spirits without paying the extra duty, and the Chancellor replied :

"The security which is required by law to be given for all bonded warehouses has been increased in a few cases where spirits have been delivered upon payment of the duty of 11s. per gallon and the additional duty of 3s. 9d. under the Budget resolution has not been deposited. The increase has only been asked for where the quantity of spirits so delivered and the amount of duty which will ultimately become payable in respect of them has been so considerable that the Commissioners of Customs and Excise have felt that the security already given was insufficient, but in no case has the increase been estimated by reference to the amount which may be due at the end of three months or at any particular date."

FERTILISERS AND FEEDING STUFFS ACT.

Mr. Charles Bathurst asked the representative of the Board of Agriculture, in the House of Commons on March 17, whether the Board had received a representation from the Royal Agricultural Society of England to the effect that the Fertilisers and Feeding Stuffs Act in its present form is inoperative and requires amendment; and, if so, whether, in view of the injury which is being inflicted upon farmers, small holders, and cottage pig-keepers by adulteration, the Government will at an early date introduce a Bill for its amendment.—Sir E. Strachey replied to the first part of the question in the affirmative, and, as to the rest, said the Board will consider if further legislation is required.—Sir William Gelder thereupon asked : Is it a fact that when county councils send up samples to the Board of Agriculture under the Fertilisers and Feeding Stuffs Act they have often to wait six or seven weeks before they get permission to prosecute, and whether this delay does not often prevent county councils taking proceedings within the specified period of three months, which renders the Act inoperative?—To this Sir E. Strachey replied that he would inquire into any cases of which particulars were given to him. This did not stop the questions, for Mr. Bathurst asked : Does the hon. gentleman consider that the concurrence of the Board of Agriculture is desirable?—Sir E. Strachey replied : "It is in the Act."

"Any Member may at any time determine his Membership by notice in writing to that effect, sent to the Secretary not later than the thirty-first day of December in any year."

This is "By-law 14" of the Society of Chemical Industry. By-law 15 certainly ought to announce the granting of a day's grace in leap years.—*Punch*.

Legal Reports.

Trade Law.

Sale or Return Question.—With reference to the case of *Berliner v. Sayers*, reported in this section last week, Mr. Arthur Berliner, surgical-dressing manufacturer, 15 and 17 Worship Street and 2a Tabernacle Street, E.C., informs us that the plaintiffs, A. Berliner or Berliner & Co., 13 Worship Street, are in no way connected with him, nor does he do business in perfumes or supply hairdressers.

Photographic Mounting Patent.—In the Chancery Division on March 22, Mr. Justice Parker delivered his reserved judgment in the action brought by the Adhesive Dry Mounting Co., Ltd., against L. Trapp & Co., of Milton House, Chiswell Street, E.C., to restrain an alleged infringement of a patented process, No. 17327 of 1901, for the mounting of photographs. [C. & D., March 5, p. 350.] His Lordship held that the patent had been anticipated in several particulars, and was consequently invalid. He went so far as to say that the idea of using an old material for an entirely new purpose, not being analogous to purposes for which it has theretofore been used, may be good subject-matter; but such idea, however ingenious, can hardly justify a claim for the material itself, which substantially was the case here. He therefore came to the conclusion that the action had failed, and it was accordingly dismissed, with costs, except as to certain issues.

Agency Commissions.—In the City of London Court on March 21, the case of *Valentine v. Ault* was heard. The plaintiff, a traveller and commission agent, sued for 100*l.* commission due after the termination of his agency for a firm of West Bromwich merchants by whom he was employed to obtain orders and he was to have 5 per cent. commission. He worked for the defendants two years and three months, when the agency was terminated by notice. Plaintiff urged that he was entitled to be paid commission on orders which came in after he left because they were obtained by his influence. For the defence it was argued that that would entitle plaintiff to a pension for life. Such a proposal was unreasonable in the great City of London, and if encouraged would spell ruin to any business house. Judge Lumley Smith, K.C., held that to entitle the plaintiff to commission after he had ceased to be defendants' agent there must be a definite contract to that effect. He therefore found for the defendants, with costs.

House of Lords. "CHARTREUSE."

The trade-marks action, in which the Carthusian monks, formerly at the monastery of La Grande Chartreuse, near Grenoble, have been fighting for the English trade in Chartreuse, came up for decision before the Lord Chancellor, Lord Macnaghten, Lord Atkinson, Lord Collins, and Lord Shaw of Dunfermline on March 18. It was an appeal from the order of the Court of Appeal (C. & D., December 14, 1907, p. 891) which reversed the decision of Mr. Justice Joyce (C. & D., October 26, 1907, p. 643) to the effect that the Carthusian monks had no right to restrain the agent of the French Government from making and selling a liqueur under the name of "Chartreuse." The action was nominally "Lecouturier and others v. Rey and others." M. Henri Lecouturier was the liquidator for the French Government in the dissolution of the monastery, and his name had been entered on the Register of Trade Marks in connection with the liqueur, and the effect of the Court of Appeal's judgment was to restrain him and others from using the word "Chartreuse" in connection with the liqueur manufactured by them. Their Lordships were unanimous in supporting the decision of the Court of Appeal, dismissing the application of Lecouturier and others. In the course of his judgment Lord Shaw said :

"It is maintained that the Order is in possession of a secret process or recipe for the manufacture of the liqueurs called Chartreuse, and it is not disputed that the business of manufacture has been conducted by the monks in that locality, that a trade of a profitable nature and of large dimensions has been built up in these articles, and that sales thereof have been conducted for many years past not in France alone, but in other countries of the world. In some of these countries trade-marks for the liqueurs have been obtained. One of these countries is England. . . . That the liqueur was manufactured according to a secret process or recipe I hold to be proved. Whether the secret imparts any virtue to the liqueur, or whether the business and efforts of Lecouturier's assignees, working in the old locality, have succeeded in

producing a liqueur as good or better, appears to me to be irrelevant, and on that head I think that the judgment of Lord Herschell in the Yorkshire Relish case, Birmingham Vinegar Brewing Company v. Powell (1897, A.C. 710, at p. 712), is entirely applicable. Whether, as Lord Davey in that case said, the two articles are 'a wonderful match' does not seem to me to be in point, except in one particular, which is not favourable to the appellants. For, my Lords, the nearer you can bring in point of appearance, qualities, or properties one article or set of goods of your manufacture to others already protected by a trade-mark, the clearer is the duty to avoid representing your goods as those others. Nor do I doubt that the use of the word 'Chartreuse' by the appellants would of itself stamp the article which they produced with the reputation which it ought not to possess—viz., that the liqueur was made from the monks' secret recipe. . . . The business of Chartreuse liqueur as such is carried on by them; and the English trade-marks are therefore trademarks in respect of a thing the business in which is not and cannot be conducted by the appellants. The trade-marks are in the latter; the business in the monks. My Lords, such severance is not legally possible."

The Lord Chancellor, in summing up, said :

"I do not think that any reflection rests upon the French judicial officer who is the appellant in this case. But this property—for property it is—which has come into question in this appeal is property situated in England, and must be regulated and disposed of in accordance with the law of England. I am glad to think that in so holding we are not affirming anything inconsistent with the decision of the French Courts, to which at all times we desire to pay the most becoming respect. The appeal must be dismissed, with costs."

Sale of Food and Drugs Acts.

CAMPHORATED OIL.

At the Bradford City Police Court, on March 2, Shaw Tindle, described as a chemist carrying on business at 171 Westgate, Bradford, was fined 2*l.* and 9*s.* costs for selling camphorated oil deficient in camphor.

LINSEED OIL.

At Horley (Surrey) on March 5, Ernest T. Sharp, chemist and druggist, Horley, was summoned for selling linseed oil certified to contain 10 per cent. of paraffin. The defendant explained that linseed oil is rarely used as a drug, and what he supplied to the inspector he had bought from a local ironmonger for his own purpose. The Chairman said that chemists had a reputation for selling genuine and first-rate things, and if linseed oil was wanted specially fine one might go to a chemist for it. A fine of 20*s.*, with costs, and the analyst's fee, was imposed.

SALICYLIC ACID IN WINES.

At Thetford, on March 17, Thomas R. Pett, Thetford, was summoned under Section 6 of the 1875 Act for selling raisin wine containing an excess of salicylic acid (2.84 grains per pint), which was alleged to be injurious to health. For the defence it was contended that if the addition of salicylic acid to raisin wine is injurious to health, as alleged, the offence is covered by Section 3 of the 1875 Act, and not by Section 6. The Bench dismissed the summons on the ground that it was taken under the wrong section.

A similar case was heard at Wymondham on March 15, when Harry Leech, grocer, Hingham, was summoned under Section 6 for selling ginger wine adulterated with salicylic acid to the extent of 3½ grains per pint. Mr. W. Lincoln Sutton, F.I.C., deputy public analyst, stated in evidence that the law allows this acid to be used as a preservative, but he considered 2 grains per pint sufficient for liquid foods, and any over that quantity was injurious to health. Mr. W. E. Keefe, for the defendant, remarked that the information said the ginger wine was adulterated, but Mr. Sutton did not say the standard of the wine, so he could not see how the defendant was liable, as he was not asked for ginger wine without salicylic acid. The chairman said the bench were of opinion that the information was laid under the wrong section, and they dismissed the case.

COD-LIVER OIL.

Mr. T. Shepherd Little, Stipendiary Magistrate, Liverpool, on March 23 resumed the hearing of the action against Ayrton, Saunders & Co., Ltd., in respect to alleged false warranty given to Abraham Jones, a branch manager of Messrs. Irwin, Sons & Co., Ltd., with cod-liver oil. The defendants submitted a guarantee

from the importers, Messrs. Crichton Bros., of London. The oil was bought under the description of "the finest Norwegian cod-liver oil, guaranteed non-freezing," and the warranty under which Messrs. Irwin are stated to have bought from the defendants referred to three dozen 8-oz. bottles of cod-liver oil, "best Norwegian, guaranteed pure B.P." The city analyst found that the oil was adulterated with 25 per cent. of mineral oil. The case has been before the magistrate on three occasions previously, and the last adjournment was made in order that Messrs. Crichton might attend on Wednesday.

Mr. James Crichton (Crichton Brothers, Carlton Works, Hackney Wick) was the first witness. He offered to take the responsibility and explained that their chemist applied rough commercial tests, first sulphuric acid then nitric acid for foreign oil only, and both failed to disclose an adulterant. This test had been applied for ten years.

The Magistrate: Then in that case it is an inefficient test.

Witness admitted that apparently it was, but it was only a rough commercial test. In future they would also test for mineral oil.

The Magistrate remarked that witness proved the case for the prosecution. His evidence showed there was carelessness.

Witness: I should say it was accident.

The Magistrate: It is my duty to prevent these sort of accidents.

Mr. Collingwood Williams (public analyst) recalled, said the adulterant appeared to be liquid paraffin.

The Magistrate then substituted Crichton Bros. for Ayrton, Saunders & Co. as defendants, discharging Messrs. Ayrton, Saunders & Co. from the case, and fining Messrs. Crichton Bros. 20*l.*, with costs. He expressed the opinion that as cod-liver oil is a valuable medicine the public must be protected. He added that great commercial carelessness had been shown.

County Court Case.

BLOOD CIRCULATORS.

At Greenock Sheriff Court on March 19, the case of Dr. Macaura, London and Glasgow, against "Professor" Harry Cameron, Greenock, came up for decision. In our issue of March 12, p. 107, we reported that the pursuer applied for an interdict to prevent the defendant selling or offering for sale blood circulators made by the pursuer, and distributing pursuer's "Handbook of Health." The Sheriff-Substitute had granted an interim interdict, but the defendant appealed against this decision to Sheriff-Principal Kennedy, who has now issued judgment refusing the interim interdict on condition that defendant within four days undertakes to keep an account of all pursuer's vibrators and pamphlets acquired by him and the names and addresses of persons from whom he had acquired them. In the course of his judgment the Sheriff-Principal remarked that the defendant had offered at reduced prices pursuer's vibrators, which he had acquired at second hand, and added:

"So far as any principles or decisions in patent law go at present, a purchaser of a patented article may do what he likes with it except use it as a model to manufacture colourable imitations, or as a part of a new machine (in certain cases). He may sell it again or give it away, and the patentee cannot claim to be paid more than once on the same article."

Gazette.

Partnerships Dissolved.

COLLINS, D. S., and BROOKS, T. C., under the style of Collins & Brooks, Adam Street, Strand, London, W.C., hair and skin specialists.

HOLLOWAY, O. L., and HOSKING, E. O., artificial limb and surgical appliance manufacturers, Museum Street, London, W.C., under the style of J. & E. Ferris, L. Holloway & Son, and O. E. Hosking.

JOHNSON, A., and STANSFIELD, W., Liscard, Cheshire, surgeons, etc.

WALKER, A. A., and WALKER, J. M., veterinary surgeons, West Hartlepool, under the style of J. M. and A. A. Walker.

WILLIAMS, H. R., and ROBERTS, E. E., surgeons and general medical practitioners, Buckley, Flint, under the style of H. R. Williams & Roberts.

New Companies Registered.

The letters P.C. mean Private Company within the meaning of the Companies Act, 1907, and R.O., Registered Office.

NYTO PREPARATIONS, LTD. (P.C.)—Capital 2,000*l.*, in 1*l.* shares. Objects: To carry on the business of chemists, druggists, oil-merchants, florists, fish-dealers, etc., and to adopt an agreement with W. P. Notcutt. The first directors are A. E. Allen, clerk; S. T. Jacoby, clerk; and A. A. Underwood, clerk. R.O., Eldon Street House, Eldon Street, E.C.

REGULIN SYNDICATE, LTD. (P.C.)—Capital 2,000*l.*. Objects: To carry on the business of vendors of patent medicines and proprietary articles, chemists, druggists, etc., and to adopt an agreement with M. J. Matthaei. The first directors are M. J. Matthaei (managing director), R. Doctor, and W. Matt. R.O., 13 Culham Street, E.C.

AUG. LEVERMORE & CO., LTD. (P.C.)—Capital 3,000*l.*, in 1*l.* shares. Objects: To take over the business carried on at 8-10 Great St. Helen's, E.C., as Aug. Levermore & Co., to carry on the business of chemical and drug merchants and agents, drysalters, precipitated-chalk and boiler-composition makers, cement, lime, plaster, and whiting manufacturers and merchants, etc. A. Levermore is governing director.

HYGIENIC SYPHON CO. (1910), LTD.—Capital, 20,000*l.*, in 19,000 shares of 1*l.* each and 20,000 shares of 1*s.* each, with objects as indicated by the title. The first directors are Sir Edward A. Stewart-Richardson, Bart., Pitfour Castle, Perth, N.B., Sir J. Roper Parkington, Kt., 24 Cruched Friars, E.C., Dr. B. Thorne, F.R.C.P., 2 Harley Street, W., and J. D. Marshall, M.P.S., 50 Wigmore Street, W.

DION, LTD. (P.C.)—Capital 800*l.*, in 1*l.* shares. To carry on the business of manufacturers of and dealers in chemicals, pharmaceutical and other preparations, etc., and to adopt an agreement with R. H. Brittain and T. W. Theakston. The first subscribers and directors are R. H. Brittain, 71 Newman Street, W., chemist and perfumer (managing director and chairman), and T. W. Theakston, 64 Haymarket, S.W., pharmaceutical chemist. Remuneration of managing director, 350*l.* per annum. R.O., 71 Newman Street, W.

PHATOLENE CO., LTD. (P.C.)—Capital 100*l.*, in 1*l.* shares. Objects: To take over the business of manufacturers and agents for the sale of "Phatolene" tablets and other patent medicines and proprietary articles carried on by Fanny K. Blount and Elizabeth M. Bowerman at Berwick House, Oxford Street, W. The first directors are G. Blount (managing director) and C. G. Bowerman. Remuneration of managing director, 130*l.* per annum; of other directors, 26*l.* each per annum and a share in the profits. R.O., Berwick House, Oxford Street, W.

Company News.

ATLAS SOAP, OIL AND CHEMICAL CO., LTD.—Mr. G. A. Goodway, Carlton House, High Street, Birmingham, was appointed receiver and manager on March 8.

STEVENS & HOWELL, LTD.—The report for 1909 shows net profit of 18,807*l.*, and the directors recommend a further dividend of 10 per cent. on the ordinary shares, making 15 per cent. for the year.

MYDDLETON'S, LTD.—In the Dublin Chancery Division on March 22, Mr. Justice Ross granted the application of Mrs. Amy Myddleton, of 2 Crumlin Terrace, Belfast, for an order that the liquidator of Myddleton's, Ltd., may be at liberty to consent to the company about to be formed to carry on the dentistry business of Myddleton's, Ltd., lately purchased by the applicant at 110*l.*, being registered in the name of Myddleton's, Ltd.

EDWARD COOK & CO., LTD.—The annual general meeting was held at the East London Soap Works, Bow, London, E., on March 18, Mr. Thomas Alexander Cook (managing director) presiding. The Chairman, in moving the adoption of the report and accounts (*C. & D.*, March 19, p. 453), stated that every department showed an increase in sales. During the past year, however, the price of raw materials for soap manufacture had advanced to an unprecedented degree without any corresponding advance in the price of soap. The resolution was carried unanimously, and Mr. H. T. Morey Attwell and Mr. Edward Arnold Richardson were elected directors of the company.

J. SHANKS & CO., LTD.—In the Chancery Division of the High Court of Justice, Dublin, recently, the Master of the Rolls heard an application in connection with a petition by John Valentine, 45 South Richmond Street, Dublin, for the

winding-up of J. Shanks & Co., Ltd., mineral-water manufacturers, Dublin. The Master of the Rolls gave the petitioner liberty to serve the receiver and manager who had been appointed by the debenture-holders—Mr. Robt. M. Leachman, of Belmont Terrace, Donnybrook, Dublin—and said he would deem service of the petitioner good if left at the last known registered office in Townsend Street. A subsequent notice in the "Dublin Gazette" states that the petitioner will be heard by the Master of the Rolls on April 11.

GERMAN CHEMICAL DIVIDENDS.—The Chemische Fabriken, formerly Weiler-ter Meer, Uerdingen-on-Rhine, is paying a dividend of 12 per cent. for 1909, against 7 per cent. in 1908.—The F. & H. Hessel Colour-works, Nierchau, made a net profit of 370,942m., against 348,999m. last year, and are paying 10 per cent. as before.—The Verein Chemischer Fabriken, Zeitz, are increasing their capital from 2,000,000m. to 4,000,000m.—The Chemische Industrie Aktiengesellschaft, Bochum, are laying down a new sulphuric-acid plant, the capacity of which will be 30,000 tons of sulphuric acid per annum, and it is the intention to proceed later with the erection of another, which will raise the annual sulphuric-acid production to 80,000 tons. The Helfenborg Chemical Works, formerly E. Dieterich, Berlin, are paying 9 per cent., against 8 per cent. last year. The Chemical Products Co., formerly Scheidemandel, Berlin, are paying 14 per cent., against 12 per cent. last year. The Union of Chemical Works, Mannheim, one of the largest manufacturers of heavy chemicals, made a net profit of 1,377,090m., against 1,352,470m. last year, and are again paying 20 per cent. The capital is 5,200,000m. The Austrian Chemical Industry Co. had an unsuccessful year in 1909, and are passing the dividend. The Mont Cenis Co., of Sodingen, in Westphalia, who have been working the process for obtaining gas and ammonium salts from peat for some years, have disposed of the American rights of their ammonia patents to an American company. The International Nitrite Co., Zurich, formed in 1906, with a capital of 2,000,000fr., have issued a report stating that the directors propose to accept the offer of a foreign syndicate to purchase the undertaking. No dividend has yet been paid.

WRIGHT, LAYMAN & UMLEY, LTD.—The first ordinary general meeting of the shareholders of this company was held at Cannon Street Hotel, E.C., on March 18. Mr. Charles Umley, F.I.C., F.C.S., presided, and, in moving the adoption of the report of the directors (*C. & D.*, March 12, p. 412), sympathetically referred to the death of Mr. C. N. Layman, with whom he had been associated in the business for nearly thirty-five years, and tendered to his wife and family the deepest expression of regret from the directors and shareholders. The report, he said, showed that the year's trading had more than borne out the expectations of the prospectus. After referring fully to the sales in the drug and coal-tar specialities departments, Mr. Umley remarked that the business of the wholesale druggist becomes one of greater responsibility day by day, and the pharmacist recognises in such responsibility the necessity for trading with houses the *personnel* of which is known to him. They had to contend with considerable difficulties also in connection with the present fiscal system, and he learnt that his son and co-director, Mr. John C. Umley, is now actively engaged in a campaign with a view to obtaining from the Inland Revenue facilities for manufacture and storage of spirituous preparations in bond. He failed to see why such facilities which are given to those handling other dutiable articles, such as potable spirits, tea, tobacco, etc., should be denied to them, and it would be obvious that those facilities would mean a considerable saving of interest on locked-up capital. The position to-day as regards the duty on spirits of wine was most perplexing. The additional duty of 3s. 9d. per proof gallon, embodied in the Budget of 1909-10, although apparently operating for good in the cause of temperance, had certainly brought no increased revenue, and considerable dislocation of business and apparently discontent among the Irish. The removal of this 3s. 9d. per proof gallon would naturally mean a very considerable loss on spirituous preparations now in stock, and to obviate such risks, the campaign to which he referred had been brought forward. He sincerely hoped that with the co-operation of the wholesale and retail drug-trade and the allied trades handling spirits of wine in the form of essences, perfumes, etc., it would be brought to a successful termination. The motion was seconded by Sir M. M. Bhownagree, who expressed the view that he voiced the sentiments of all the shareholders in congratulating the directors on the satisfactory outcome of the first year's trading of the company. Replying to a shareholder, Mr. John C. Umley stated that the proportion of the profits on Wright's coal-tar soap was last year in greater ratio to the increased expenditure on advertising than in the previous year. The report and balance-sheet were carried unanimously. Mr. Charles Umley was re-elected a director, and Messrs. Evans, Fripp, Deed & Co. were reappointed auditors.

Births.

BRAUN.—At 36 St. Peter's, Bedford, on March 20, the wife of H. S. Braun, chemist, of a son.

POINGDESTRE.—At 193 Greenwich Road, West Greenwich, London, S.E., on March 19, the wife of Charles E. Poingdestre, pharmacist, of a daughter.

Deaths.

ANDERSON.—At St. George's Hospital, London, on March 12, Mr. John Alexander Anderson, chemist and druggist, aged twenty-three. Mr. Anderson was a native of Arbroath, where he served his apprenticeship with Mr. F. W. M. Bennett, and passed the Minor examination on January 7, 1909. Shortly thereafter he came to London as qualified assistant to Messrs. Dyson & Co., 35 Gloucester Road, S.W., and remained with them until his death, which was due to perforation of the stomach. He was taken ill while at the dispensing counter. Mr. Anderson was an active member of the Chemists' Assistants' Association.

BARDILL.—On March 12, Mr. Draper Welch Bardill, chemist and druggist, 18 Swinburn Street, Derby, aged fifty-one.

BARTON.—On March 13, Mr. John Barton, chemist and druggist, Long Eaton, Derbyshire, aged seventy-nine.

BOOTHROYD.—At Brighouse, on March 20, Mr. William Boothroyd, aged seventy-nine. Mr. Boothroyd was a native of the Huddersfield district, and went to Brighouse many years ago, being connected with the business of the late Mr. J. C. Bottomley, manufacturing chemist.

HOWATSON.—At Woodwynd, Kilwinning, Ayrshire, on March 21, Mr. James Howatson, druggist, aged seventy-four. Mr. Howatson had been in business at 81 Main Street, Kilwinning.

Recent Wills.

The late Mr. JOHN BATCHELOR, solicitor, Blackheath, S.E., a director of Spratt's Patent, Ltd., left estate of the value of 35,261l.

Mr. WILLIAM HOBSON, chemist and druggist, 47 Lynmouth Read, Sheffield, formerly of Hoyland, who died on January 25 last, aged eighty-three years, left estate valued at 1,354l. 9s. 7d. gross, of which 1,331l. 15s. 1d. is net personalty.

Veterinary Note.

By a M.R.C.V.S.

Sheep-dip.

The following is the formula for a sheep-dip for ticks, which is issued by the Queensland authorities :

Arsenic	...	...	...	...	8 lb
Caustic soda	...	...	...	...	4½ lb.
Stockholm tar	...	...	...	...	2½ gals.
Tallow	...	...	...	...	8 lb.
Water	...	...	...	...	400 gals.

Half fill with water a 5-gal. drum, add 2 lb. of caustic soda, and boil; then add slowly 8 lb. of arsenic. Add cold water in small quantities, to prevent overboiling, until the drum is full. Boil 100 gals. of water in a 400-gal. tank; add 2½ lb. of caustic soda, then 8 lb. of tallow, and boil quickly. Add slowly in a thin stream the Stockholm tar. When the whole of the tar has been added, boil for from thirty to forty minutes; then add the arsenic solution, add water, and keep the mixture boiling until the tank is filled.

THE THAMES VALLEY CHEMISTS have the utmost confidence in the Pharmaceutical Council's efforts to secure the place name "pharmacy," either by Act of Parliament or through the Law Courts, but why did they immediately discuss "the constitution of the present Council"?

"THE SPHERE" went quite outside its orbit the other week. When writing about a tailor's bill, it said: "Chemists, too. I should like to see their charges brought down, and even more I should like to meet with a chemist who would make up a prescription of his own accord in a large bottle instead of a small one." The problem is to find the sense of the quotation.

Trade Notes.

P.A.T.A. PRICES.—The additions to the Protected List for March are: Bronley's Viotto cream; Sanitas Bactox lanoline and patent toilet-paper; Southall's Nervanto and Conqueror corn-cure; Karn wine with quinine. The removals from the list are Carabana water; Grapelax; Dr. Martin's Miracletts.

MESSRS. ROGERS & CO., Carter Street, Walworth Road, London, S.E., manufacturers of silicated grease-proof boxes and other turned wooden boxes for chemists, have issued a new illustrated price-list of their products, which shows the various uses to which the boxes may be put. Our readers can obtain copies on application.

"GAYETTY" TOILET-PAPER.—Some of our readers may remember the time when the only toilet-paper on the market was Gayetty's, and "Gayetty" meant toilet-paper. It is still a favourite among many toilet-papers, but there is only one "Gayetty," and Messrs. B. T. Hoogland's Sons, of New York, and their agents, Messrs. John Morgan Richards & Sons, Ltd., 46 Holborn Viaduct, London, E.C., print a cautionary advertisement about it in this issue.

EASTER HOLIDAYS.—Messrs. T. Christy & Co., 4, 10, and 12 Old Swan Lane, Upper Thames Street, London, E.C., are closing their offices and warehouse from Thursday evening, March 24, until Tuesday morning, March 29, on which day the closing hour will be 4 p.m. Messrs. Jules Denoual & Co., Carlton Works, Asylum Road, London, S.E., are also closing their offices and works from the evening of March 24 until the morning of March 29. The C. & D. Office, 42 Cannon Street, E.C., will be closed at 1 p.m. on March 24.

FULFORD WINDOW SHOWS.—Messrs. C. E. Fulford, Ltd., 15 and 16 Greek Street, Leeds, have published an illustrated list of the third series of their window-shows for Zam-buk, Bile beans, and Peps. Retailers can obtain a copy of it on application. The company are now entering upon an energetic advertising campaign for Zam-buk soap, which has been growing in favour with little advertising. It sells at 1s. a tablet, or three cakes in a box for 2s. 9d., and gives the retailer 3d. a tablet profit when sold at the minimum rate—10½d. The public are being offered sample cakes for 1d. each.

LAVENDER DRY SHAMPOO.—The latest addition to the Standard Tablet and Pill Co.'s series of toilet preparations is a lavender dry shampoo, which is elegantly put up in 4 oz. (1s.) and 8 oz. (1s. 9d.) panelled white-glass bottles, neatly capped *à la Viscose*, and with the mauve and gold labels designed in uniformity with other preparations of the series. The shampoo does its work well, affording a copious lather which vanishes slowly as one massages, and leaves the hair nice and soft and the head cool. There is space on the label for the chemist's own name and address. Further information may be got from the company at Hove, Sussex.

AILMENT NAME TABLETS.—Messrs. W. B. Cartwright, Ltd., Burton Works, Dewsbury Road, Leeds, are making a feature of the manner in which they present compressed tablets to their customers. In the first place the tablets are for specific ailments, and are either entire drugs or are compounded according to published formulas for known, admitted, and approved remedies. Then the tablets are put up in amber screw-capped bottles, the labels of which are printed with the name and address of the retailer or have space for insertion of the retailer's slip label. The labels are of original designs. Half a dozen bottles are put in a stand-up show-box, with advertising matter at top and bottom, the bottles being in the middle section. Besides this display, exhibit cards, each for a specimen bottle, are supplied, the wording in each case being catchy and to the point. The same remark is appropriate to a series of window-bills. We quote an example:

THE BURDEN OF ANÆMIA.—Anæmia grips at the roots of health and produces that indescribable "tired feeling." Anæmia tablets destroy the cause of blood weakness, which is the root of all the trouble. Per box, 7½d. Eight days' treatment.

This is effectively set up. The handbills are of varied sizes and style; in short, the company have thought out

well what chemists need nowadays in the way of window-display to further the sale of goods. Particulars as to prices and terms can be obtained from the company on application.

Personalities.

Notes for this section must not be in the nature of advertisements, and they should be authenticated when sent to the Editor.

MR. W. CHADWICK, chemical-manufacturer, Kidderminster, has been re-elected Vice-President of the local Chamber of Commerce.

MR. G. MERCER, chemist and druggist, Queen Street, Great Harwood, has been reappointed Secretary of the local Tradesmen's Association.

MR. R. KNOWLES, chemist and druggist, 29 The Terrace, Morecambe, has been re-elected to the Lancaster Board of Guardians for the Victoria Ward.

MR. HENRY HINDS POLLARD, chemist and druggist, 168 High Street, Ryde, has been re-elected an alderman of the Isle of Wight County Council.

SIR THOMAS BARLOW, M.D., F.R.S., has been elected President of the Royal College of Physicians of London, in succession to Sir R. Douglas Powell.

MR. C. T. BENNETT, Ph.C., B.Sc., of Messrs. Wright, Layman & Umney's laboratory staff, has been elected a member of the Society of Public Analysts.

MR. W. WOOLLEY, J.P., managing director of Cupal, Ltd., Blackburn, has been appointed by the Blackburn Wesleyan Circuit as one of the representatives at the May Synod.

MR. E. A. HOLLOWAY, chemist, Southend, figures in the "Southend and Westcliff Graphic" of March 18 as a left-handed golfer. He won the bogey prize of the Thorpe Hall Club the day after.

MR. WILFRED RANDALL CLARKE, son of Mr. R. Feaver Clarke, Ph.C., Gravesend, and an apprentice of Messrs. Vickers, Sons & Maxim, Erith, has passed the studentship examination of the Institute of Civil Engineers.

MR. E. NEALE, chemist and druggist, 10 High Street, Chippenham, has been elected to the committee of the local Chamber of Commerce. Mr. J. C. Coles, chemist and druggist, Market Place, has been appointed an auditor to the Chamber.

MR. W. MACADIE, Ph.C., who has been appointed chief pharmacist to the Royal Free Hospital, has been presented by his colleagues and friends at the Hospital for Sick Children with a solid silver cigarette-case, suitably inscribed. The presentation was made by Mr. Johnson (Secretary), who eulogised Mr. Macadie's services to the hospital and wished him much success.

MR. THOMAS HENRY SEED, the new President of the West Ham Pharmacists' Association, is a son of the late Rev. W. Seed, Wesleyan minister. He was born at Dartford and educated at Kingswood School, Bath. He was apprenticed in the West End of London, after which he entered Westminster College of Chemistry and Pharmacy, and passed Minor and Apothecaries' Hall in 1891, when he was twenty-one years of age. Mr. Seed has been in business on his own account in Leyton over sixteen years, and has another establishment in Leytonstone. He has been a member of the West Ham Association since its inception.

MR. JOHN C. UMLEY figures in last week's "Who's Who in Advertising," a series of appreciations published by "Printers' Ink." The kernel of the two-page article, in which the history of Wright's coal-tar soap is interwoven, is the following paragraph :

"Mr. Umney, as an advertiser, puts aside all technicalities, and comes out and talks to mothers and fathers as one interested in their babies. He has studied babies as well as soap, and he knows just what a woman wants to know about washing the tyrant of the household. When you come to think of it, it seems curious that a man of such awe-inspiring qualifications could come down to talk about trifles like babies—and then you remember that quizzical smile, and you realise that there's just a plain very human man behind it all. That is the secret of Mr. Umney's success in both walks of life—soap and drugs."

"And he always looks pleasant," concludes the writer.

Contracts.

Settlement of the following contracts has been notified since our last issue:

Barking Urban District Council.—For annual supplies. Mr. J. Freeman, chemist and druggist, Barking, for drugs and chemists' goods; Burt, Boulton & Haywood, Ltd., for disinfectants.

Battersea Borough Council.—Forbes, Abbott & Lennard, Ltd., the Sanitas Co., Ltd., Quibell Bros., Ltd., and the Formalin Hygienic Co., Ltd., for annual supplies of disinfectants.

Bourne Guardians.—Mills & Baxter, chemists, and Mr. E. H. Judge, chemist and druggist, Bourne, for the supply of disinfectants.

Bradford Guardians.—For the supply of drugs to the hospitals during the ensuing year. The tenders of Harrison, Parkinson & Co., Bradford, and F. M. Rimmington & Son Ltd., Bradford, are to be referred to the medical officer, with instructions to purchase the lowest priced goods in each tender.

Brentford District Council.—Mr. A. Hawthorne, chemist and druggist, Brentford, for the supply of chemicals and antitoxin to the hospital.

Camberwell Guardians.—P. B. Cow & Co., for one dozen water-beds at 2*s.* each.

Central London Sick Asylum.—Robinson & Sons, Ltd., for the annual supply of surgical dressings to the Cleveland Street and Hendon establishments at 30*s.*

Cheltenham Guardians.—Ferris & Co., Ltd., Bristol, for drugs, at 15 per cent. off list, and surgical dressings; Mr. W. H. Hill, chemist and druggist, Cheltenham, for extra dispensing and sundries during the year; Cheltenham & County Drug Co., Ltd., double carbolic acid (20 per cent.), at 1*s.* per gal.

Chester Union.—Mr. J. W. Huke, chemist and druggist, Chester, for the supply of drugs for the half-year.

Chipping Norton.—Mr. H. W. G. Morris, chemist and druggist, Chipping Norton, for the supply of disinfectants.

Croydon Guardians.—Corbyn, Stacey & Co., Ltd., for drugs; Hospitals & General Contracts Co., Ltd., for medical and surgical appliances; Anderson, Anderson & Anderson, Ltd., for rubber goods.

Dartford Guardians.—T. Hodgkinson, Prestons & King, for drugs; Burgoine, Burbidges & Co., for druggists' sundries; Forbes, Abbott & Lennard, Ltd., for disinfectants.

Deptford Borough Council.—Rowson, Drew & Clydesdale, Ltd., for all annual supplies of disinfectants except Sanitas and Lawes' specialities; Sanitas Co., Ltd., for Sanitas specialities; Lawes' Chemical Co., Ltd., for Lawes' specialities.

Eastry Guardians.—Mr. A. E. Woodruff, chemist and druggist, Eastry, for the supply of chemists' sundries for three months.

Hampstead Guardians.—T. Hodgkinson, Prestons & King, for the supply of drugs; and Mr. E. B. Stamp, Hampstead, London, N.W., appointed to carry out the chemist's work.

Hevel Hempstead Guardians.—Mr. J. Roberts, for the half-yearly supply of surgical dressings.

Hemsworth Guardians.—Mr. G. Hodgson, chemist and druggist, Hemsworth, for the supply of drugs.

Howden Guardians.—Mr. T. F. Spivey, chemist and druggist, Howden, for the half-yearly drug supply.

Hinckley Urban Council.—Knight & Crofts, chemists, Hinckley, for carbolic powder, formalin solution, and sulphur candles; Mr. K. Nixon, chemist and druggist, Hinckley, for carbolic acid, formalin tablets, and rock sulphur.

India Office.—W. Warne & Co., for indiarubber sheet.

Isle of Thanet Board of Guardians.—Mr. B. Gardner, for disinfectants, at 3*s.* 9*d.* per gal.

Keighley Joint Hospital Board.—Mr. T. A. C. Butterfield, chemist and druggist, Keighley, for the drug supply.

Kensington Guardians.—For annual supplies: T. Hodgkinson, Prestons & King, for drugs at 27*s.* 5*s.* 5*d.*; Evans Sons Lescher & Webb Ltd., for druggists' sundries, at 55*s.* 17*s.* 8*d.*; S. Maw, Son & Sons, for dressings at 38*s.* 19*s.* 8*d.*

Lambeth Parish.—Corbyn, Stacey & Co., Ltd., for drugs.

Leyton Urban District Council.—Mr. T. H. Seed, chemist and druggist, Leyton, for chemists' and druggists' sundries; Newton, Chambers & Co., Ltd., for disinfectants.

Luton Guardians.—Mr. R. P. Chantler, Luton, for drugs, etc.

Milton Regis Guardians.—Mr. J. E. French, chemist and druggist, Sittingbourne, for chemists' goods, at 44*s.* 15*s.* 7*d.*

Neath (Glam.) Guardians.—Messrs. W. Morse and W. L. Morgan, for the supply of chemicals.

Newcastle-under-Lyme Guardians.—Oxens, Ltd., for drugs, etc.

Reigate Guardians.—Mr. W. H. Fowler, Ph.C., Redhill, for drugs, etc.

Romford Guardians.—Mr. W. S. Steeples, chemist and druggist, Romford, for the supply of drugs at 23*s.* 3*s.* 7*d.*

Southend-on-Sea Corporation Hospital.—Mr. F. I. Johnson, chemist and druggist, Southend, for druggists' goods during the ensuing year.

Strand Union.—Burgoine, Burbidges & Co., for drugs.

Swansea Town Council.—For annual supplies: Burt, Boulton & Haywood, Ltd., for disinfecting powder; Adcocks for disinfecting fluid and sulphur candles; the Sanitas Co., Ltd., for Kingzett drain-testers; Jackson & Co., Swansea, for chloride of lime; United Alkali Co. for chloros; McDougall Bros., Manchester, for carbolic soap, McDougall's powder, and Vapaforn lamps; the Welsh Rubber Co. for indiarubber goods.

Wirral Guardians.—Mr. J. G. Lee, chemist and druggist, Neston, Cheshire, for the supply of drugs and druggists' sundries.

Wrexham Board of Guardians.—Francis & Co., chemists, Wrexham, for the six months' drug-supply, at 17*s.* 10*s.* 2*d.*

Yarmouth Guardians.—Mr. T. J. Woodcock, chemist and druggist, Yarmouth, for the half-yearly supply of drugs to the workhouse.

Yeovil Town Council.—Taylor & Brett, chemists, Yeovil; A. Rowan & Brother; Killgern Co., Ltd., Cleckheaton; and Newton, Chambers & Co., Ltd., Sheffield, for the supply of disinfectants.

Drugs for Prisons.

The Prison Commissioners have been inviting tenders for the supply of 1,198 articles comprising drugs and druggists' sundries for supply to all prisons, State inebriate reformatories, and Borstal institutions in England and Wales. The specification makes the usual provisions as to quality, and prices are quoted, those of spirituous preparations being subject to the spirit-duty being increased as proposed by the Finance Bill of 1909. The following are examples of the specified rates: Acacia-gum, pulv., 2*s.* 6*d.* per lb.; acetanilide, 2*d.* per oz.; acid, boric, cryst. 4*d.* per lb., pulv. 5*d.* per lb.; acid, carbolic, 1*s.* 2*d.* per lb., liquefact, 1*s.* 1*d.* per lb.; ammon. carb., 5*d.* per lb.; bals. Peru, 8*s.* per lb.; bismuth carb., 9*s.* per lb.; buchu-leaves, short, 1*s.* 10*d.* per lb.; chloroform, 6*s.* 6*d.* per lb.; ext. bellad. liq., 7*s.* 3*d.* per lb.; ext. cascara sagrada liq., 2*s.* 3*d.* per lb.; ext. ipecac. liq., 18*s.* per lb.; glycerin, 1*s.* 3*d.* per lb.; hydrarg. perchlor., 3*s.* per lb.; magnes. sulph. (Howard's), 12*s.* per cwt.; menthol, 2*s.* 2*d.* per oz.; ol. amygdalæ, 2*s.* 8*d.* per lb.; ol. juniperi; Ang., 26*s.* per lb.; potass. iodid., 10*s.* 6*d.* per lb.; pulv. glycyrrh. co., 1*s.* per lb.; pulv. rhei co., 3*s.* 6*d.* per lb.; spt. eth. nit., 4*s.* 3*d.* per lb.; tr.aconite, 4*s.* 3*d.* per lb.; tr. benz. co., 4*s.* 7*d.* per lb.; tr. chlorof. et morph. co., 5*s.* 9*d.* per lb.; tr. gent. co., 2*s.* 8*d.* per lb.; tr. zingib., 4*s.* 8*d.* per lb.; ung. ac. boric., 1*s.* 2*d.* per lb.; ung. gallæ c. opio, 3*s.* per lb.; ung. zinci, 1*s.* 3*d.* per lb.; vin. quinin., 9*d.* per lb.; bandages, calico, 4 yards 2*s.* 2*d.*, 6 yards 3*s.* 3*d.*, and 9 yards 4*s.* 10*d.* per doz.; "Ganggee" tissue (bleached), 2*s.* 8*d.* per lb.; lint, 1*s.* 6*d.* per lb.; clinical thermometers, ordinary 24*s.* per doz., magnifying index 35*s.*, one-minute 28*s.*, magnifying index 44*s.* Tenderers quote discounts off these prices.

Agri-Horticultural Licences.

(Poisons and Pharmacy Act, Sec. 2.)

Notices of Application.

CASLE DOUGLAS.—Robt. C. Brown, ironmonger, 37 King Street; J. McGuffog & R. McDonald, ironmongers, 161 King Street; and Harriet Davidson (Davidson & Crighton, ironmongers), 135 King Street.

DONCASTER.—J. G. Mitchell (Pennell & Sons, nurserymen), 11 High Street.

ESSEX.—Wm. Merryfield Meeson, Battlesbridge.

FIFE.—Robert Ritchie, ironmonger, 66-68 High Street, West, Leslie.

RICHMOND.—Sydney Flowers, ironmonger, of 67 Kew Road. A previous application was refused by the authorities in May 1909.

TWICKENHAM.—H. R. & A. Beauchamp, nurserymen, 34 London Road.

SOME advocate the formation of two distinct classes, the pharmacist and the druggist, such as exist in Ireland and in Continental countries, and I feel certain that this is the natural form of development which will ultimately obtain here as well.—James Grier, M.Sc.

Chemical Society.

A N ordinary meeting was held at Burlington House on Thursday evening, March 17, Professor H. B. Dixon, M.A., F.R.S. (President), in the chair. Reference was made to the deaths of Professor Landolt and Dr. J. Campbell Brown. In the former case a telegram of condolence was sent on behalf of the Society, and in the second the terms of a resolution to be submitted at the next Council-meeting were read. The first paper was on the

ORGANIC DERIVATIVES OF SILICON,

this being the ninth part of a series of investigations by Dr. Kipping and his colleagues. It described the resolution into optical antipodes of methylpropylbenzylsilicamonomosulphonic acid. The salts of this acid with the usual optically active bases will not separate into obvious optical isomerides, except in the case of the brucine salt, which splits easily into a crystalline salt and a vitreous salt. These show, however, only a minute difference in melting-point, and from them it is very difficult to separate the corresponding optically active acids. These were eventually obtained, but proved to be only slightly different in rotation, the specific rotations being -0.75 and +2.25 respectively.

The next two papers were by Dr. Sidgwick and his pupils, and were purely physical, dealing with the rate of conversion of acetic anhydride into acetic acid by the action of water, and the physical explanation of the colour of copper-salt solutions.

METALLIC CARBONYLS

was the subject of the next paper, contributed by Mr. Robert Mond, who explained that it represented the last experimental work done by his father, the late Dr. Ludwig Mond. The carbonyls already described are those of iron and nickel. In the present paper those of cobalt, molybdenum, and ruthenium were described. These are formed in the usual way by the action of carbon monoxide on the metal. The carbonyls are all similar in chemical behaviour, but show great differences in physical state and properties. Some of them are liquids, others can be volatilised, and others are solids which decompose on warming. Some are colourless and others go through yellow, green, orange, and rose to black. Generally they are of very complex composition, and molecular formulas cannot be assigned to them. The paper was illustrated by an interesting exhibit of the nickeliferous pyrrhotite of Sudbury, from which the Mond Nickel Co. obtains its nickel, and of nickel in various forms prepared by the company. Specimens of the new carbonyls were also shown. After the meeting Mr. Mond and his assistants prepared nickel mirrors and illustrated in other ways the preparation and utilisation of nickel carbonyl.

The last paper was on the relationship between absorption spectra and isomeric change, and was read by Dr. Lowry. The results obtained indicated that "ultra-violet colour" can be explained like ordinary colour by the Armstrong theory of the simultaneous occurrence in a substance of three absorbing centres.

The Annual General Meeting

was held in the same place on Friday, March 18, at 5 o'clock, Professor Dixon again presiding. There was an excellent attendance of Fellows, a strong contingent having come from Oxford, apparently to honour the President, who is a distinguished Oxford graduate. The front bench was full of Past Presidents and other leading officers, including Sir Edward Thorpe, Sir William Ramsay, and Dr. Henry E. Armstrong. Visitors were not admitted to the early part of the proceedings. Scrutators were appointed to examine the voting-papers for the election of officers, and the President called attention to the fact that the name of Professor Campbell Brown appeared on the papers as a proposed Vice-President. He suggested that the name of either of the retiring Vice-Presidents, Dr. Dobbie or Sir Alexander Pedlar, might be written by the Fellows on the papers. The ballot was then opened.

A FELLOW'S GRANVANCE.

The President intimated that Mr. H. S. Shelton had suggested that abstracts of all papers of scientific interest

should appear in the journal of the Society, but the Council thought that the present conditions, under which the Editor has discretion as to what should or should not be abstracted, should be continued. Mr. Shelton had given notice of a motion on the subject, and this was an appropriate time to bring it on. Mr. Shelton then went on the platform. He is a B.Sc. of the London University and has been a Fellow of the Society since 1904, and has contributed to the Society's "Proceedings." He intimated that his motion was to the effect that all papers dealing with chemical matters published in recognised scientific journals should be abstracted in the journal of the Society. He put this motion forward for the consideration of the incoming Council, and proceeded to explain that some time ago a paper had appeared in the "Chemical News," but no abstract was made of it in the journal of the Society. Whereupon he wrote to the Editor about the matter, and a correspondence ensued between him and the Editor and the Secretaries of the Society. Mr. Shelton read this correspondence, which was largely of a personal character, and after he had spoken for ten minutes the President intervened, saying, amid applause, that Mr. Shelton had gone too far. He asked if there was a seconder of the motion; there being none, the meeting proceeded to the next business.

[We presume that the paper referred to by Mr. Shelton was one on "The Sodium and Chlorine in River and Rain Waters," which was published in the "Chemical News" of May 28, 1909. This was by himself, and set forth some causes of uncertainty in water analysis and suggested that river and rain water analysts should make certain observations on their certificates, and concluded with the hope "that these few suggestions may serve the double purpose of preventing geologists from basing cosmic speculation on very insecure foundations, and of suggesting to analysts the great theoretic interest of work which is of minor importance for the more immediate purposes of their analyses.]

ANNUAL REPORTS.

It was agreed to take the annual report of the Council as read. This showed that on December 31, 1909, the Society numbered 3,003 Fellows, or 53 more than in the preceding year. Among the Fellows mentioned in the obituary notice were two pharmacists—Mr. Charles Ekin and Mr. G. E. Perry. Two other pharmacists had resigned the Fellowship, Messrs. F. R. Duddridge and H. W. Harrie. The Society has 34 honorary and foreign members. The Council congratulated the following upon having reached their jubilee as Fellows of the Society: Professor Dr. Heinrich Debus, F.R.S., Mr. Thomas Fogg, Dr. A. G. Vernon Harcourt, F.R.S., Mr. Josiah W. Kynaston, Dr. Hugo Müller, F.R.S., Mr. Thomas W. Salter, and Mr. John Spiller. During the year 300 communications had been made to the Society, of which 227 had been published in the "Transactions" and abstracts of all in the "Proceedings." Numerous details were submitted and the report proceeded to state that

"In chronological order, Past-Presidents the Right Hon. Sir Henry Roscoe, Sir William Crookes, Dr. Hugo Müller, and Dr. A. G. Vernon Harcourt have more than completed fifty years of Fellowship, while Professor William Odling, who has now been for sixty-two years a Fellow, and became President in 1873, is the sole survivor of the six Past-Presidents who were entertained to a banquet in 1898. Desiring to do honour to these gentlemen in the name of the Society, the Council, through the President, has invited them to a banquet to be held during the ensuing summer, believing that a considerable number of Fellows will be glad to assist at this interesting commemoration, details of which will be announced forthwith."

The Council also expressed high appreciation of the valuable services rendered to the Society by Dr. M. O. Forster as Hon. Secretary during the past six years. Reference was next made to the Library and the accounts. Dr. Alexander Scott, F.R.S. (Treasurer), was called upon to give some particulars regarding

THE INCOME AND EXPENDITURE

of the Society during the year. The income was 7,387*l.* 8*s.* and the expenditure 7,028*l.* 3*s.* 5*d.*, thus showing a balance of 359*l.* 4*s.* 7*d.* Dr. Scott caused a laugh by his reference to the sale of waste paper, which yielded about 13*l.*, "if we can include the Royal Society's 'Proceedings' as waste paper." Altogether 10 tons was disposed of. He next

spoke of the advertisement section of the journal, which has been so unsatisfactory that Dr. Scott has received authority from the Council to run it himself. The balance-sheet showed that the Society's assets amount to £32,213. 16s. 3d., including £20,297. 11s. 5d. of investments on behalf of the Society, and £10,366. 17s. 7d. on behalf of the Research Fund. The estimated value of the Library, exclusive of the stock of the Society's own publications, is £7,200/., and of the furniture £3,350/. In concluding, Dr. Scott moved that the thanks of the Society be given to Dr. J. Augustus Voelcker, Mr. Victor H. Veley and Dr. Frederick B. Power, the auditors of the Society's accounts. This was heartily accorded, and Dr. Voelcker, in acknowledging, referred to the balance of the dinner account, £70/. 9s. 6d., which had been mentioned by Dr. Scott, and said that it was the opinion of the auditors that some means should be adopted so that this should not occur.

The reports were adopted. Dr. Dycr moved a vote of thanks to the officers and Council, especially mentioning, amid applause, the work done by Dr. Forster, which was also spoken of by Mr. Grant Hooper in seconding the motion, which was adopted, and Dr. Forster briefly acknowledged it.

Visitors were at this stage admitted in order to hear

THE PRESIDENTIAL ADDRESS,

but the audience was not sensibly augmented. The address was a fine literary effort, seasoned with dry humour and

characterised by cultured utterance. The subject was "The Union of Hydrogen and Oxygen in Flame." Professor Dixon referred at the outset to the dictum of his predecessor in the chair to the effect that theories are something which we expect to be true, and hypotheses something that we expect to be useful. He defended hypotheses, but admitted that, like professors who no longer work in their laboratories,

they should be discarded when they cease to be useful. Professor Dixon's experiments with gases commenced over thirty years ago, when his old teacher at Oxford, Dr. Vernon Harcourt, set him to determine the conditions upon which hydrogen and oxygen unite, and he thanked that teacher for the value of his suggestion (Professor Dixon's name is now identified with the explosion of gases). The President proceeded to discuss the union of carbon monoxide and oxygen, and hydrogen and oxygen, as well as other gases with oxygen, and described a large number of experiments which he and his colleagues have conducted in order to determine the constants and principles associated with these phenomena. It was shown by a series of photographs that when hydrogen and oxygen unite by ignition this begins at a point (not throughout the whole mass at once, as is supposed by many), and the force of the union or explosion widens out as it travels through the mass of gas. The velocity of the explosion has been determined, although in practically all the experiments in which the gases have been exploded under pressure, the glass tubes have broken immediately, and the photograph film has been exposed not more than one ten-thousandth of a second. Some of these photographs showed explosion-waves followed by sound-waves induced in the tubes. The President further explained that hydrogen and oxygen when dry explode with the spark and without the intervention of water, but by heating dried gases a higher temperature is required for explosion than when the gases are not dried, although in both cases a certain amount of silent combination takes

place. Hydrogen peroxide as well as ozone can be detected in the hydrogen flame burning in oxygen, but peroxide is not the initial product in combining H and O. Falk's experiments were examined, and a series of data from the President's own experiments were contrasted with them to show that, contrary to Falk's conclusion, the greater the proportion of oxygen to hydrogen, the lower temperature is required for its combustion, thus for $H_2 + O_2$ Falk gave 570° (with continued pressure), but Professor Dixon exploded that mixture at 510° (retarding the drop of the piston).

These fragmentary notes may serve to indicate the range of the address, which should be perused when printed. Dr. Vernon Harcourt, in moving a vote of thanks to the President, expressed his pleasure in hearing it, and commended the care exhibited in the experiments and the value of the deductions. Sir Edward Thorpe, who seconded the motion and put it to the meeting, was equally complimentary. Professor Dixon briefly replied and announced

THE RESULT OF THE BALLOT.

This confirmed the recommendations of the Council. Professor Dixon was re-elected President, and Dr. Dobbie, Principal of the Government Laboratories, takes the place of the late Dr. Campbell Brown as a Vice-President. Professor Collie, Dr. M. O. Ferster, Professor Kipping, Dr. Liversidge and Professor James Walker are the other Vice-Presidents. Professor A. W. Crossley becomes Senior Secretary, and Dr. G. T. Morgan succeeds him as Junior Secretary. Dr. Scott is again Treasurer, and Dr. Horace T. Brown Foreign Secretary. The new Councillors are Mr. Adrian J. Brown, Dr. Alex. McKenzie, Dr. J. C. Philip, and Sir Boerton Redwood. This was all the business.

Business Changes.

Notes for this section must not be in the nature of advertisements, and they should be authenticated when sent to the Editor.

MR. J. REES, chemist and druggist, is opening a pharmacy at Cross Hands, Carmarthen.

MR. F. A. HANWORTH, chemist and druggist, has purchased the business of Mr. P. J. Brown, chemist, Oulton Broad, Suffolk.

MR. F. W. DOUBLEDAY, chemist and druggist, has sold his business at 78 High Street, Dorking, to Mr. Harold Dixon. Mr. Doubleday is continuing his dental practice at Wyngate House, South Street, Dorking.

MR. J. COFMAN-NICORESTI, Ph.L.M.P.S., has opened an Anglo-American and Continental Pharmacy at 6 Bloomsbury Street, New Oxford Street, W.C. The fittings are in carved and polished oak, and the window combines the old and new types, the central portion being occupied by a gilt-and-white show-jar and two elongated oval swan-necked carboys on oak pedestals, and the side sections are devoted to medicinal specialities and perfumery. The interior shelving and drawer fixtures run the full length along one side, the counter case and dispensing screen being immediately in front. The counter consists practically of a huge plate-glass case, surmounted by three glass counter-cases, serving sections being between them. The result is that while a fine display of goods is presented to the customer, all articles are enclosed. The dispensing screen exhibits several novel features, the principal one being that it forms three cupboards holding the dispensing balances, which are on view to the customer. Measures and utensils are all out of sight, and are sent below by lift as they require cleaning. Showcases line the wall on the customers' side of the shop. Other novel features are a roll-top covered sink, and a fume cupboard. The artificial lighting consists of two quartettes of lights with two large central ones which project but slightly from a handsome moulded ceiling. Internal telephone, card-index cabinets, and the drawer fittings are other features to which particular attention has been devoted. The laboratories and stores are in a spacious basement.

LACTIC-BACILLI CHEESE, containing *Bacillus bulgaricus* of Massol in its most active form, is now on the market. Are chemists to stock it?



PROFESSOR DIXON.

Photographic Notes.

(By a Pharmaceutical Camerist.)

Federation of Survey Societies.

THOSE interested in photographic survey matters will be pleased to observe the increased interest which is being manifested in the work of this particular branch of photography. No doubt the news of the dissolution of the National Record Association will be received with regret by many, but regret will be tempered by the knowledge that much more extended work will be possible with the proposed federation of record societies. Pending the inauguration of the federation, information can be obtained from the Acting Secretary, Mr. F. F. Wood, 11 Milton Road, Wallington, Surrey.

Rapid Bromide Printing.

IN "Photography and Focus" is given a simple and useful method of producing a number of bromide prints rapidly, which I do not remember having seen suggested before. The photographer is advised to buy the paper in cut pieces, twice the size of the prints required, and, having folded the sheets in halves film side outwards, to expose first one side and then the other, and to develop the two prints together, cutting the sheet in two afterwards. I suggest the insertion of a piece of dead-black paper or cardboard between the folds of the paper during exposure, particularly when dealing with a negative requiring a prolonged exposure, as bromide paper is not quite opaque. The developer recommended is :

Metol	... ...	70 grains
Hydroquinone	... ...	35 grains
Sodium sulphite	... ...	½ oz.
Sodium carbonate	... ...	1 oz.
Potassium bromide	... ...	20 grains
Water	... ...	20 oz.

A Phosphate Emulsion Paper.

A PATENT (10,284/1909) has been taken out for an emulsion made by the addition of a soluble molybdate or tungstate to a gelatine emulsion of silver phosphate for printing on papers. The presence of a soluble molybdate or tungstate and the formation of the corresponding salts of silver gives improved results. The specification gives the following formula for the emulsion :

- a. Gelatin 60 grams
- Water 600 c.c.
- b. Sodium phosphate 17.5 grams
- Citric acid 1.5 grams
- Water 150 c.c.
- c. Silver nitrate 25 grams
- Water 150 c.c.
- d. Sodium tungstate 7 grams
- Water 75 c.c.

b and c are added alternately to a in small portions, and d is finally added slowly, with constant stirring. The developer is :

Metol	... ...	7 grams
Glacial acetic acid	... ...	23 grams
Water	... ...	600 c.c.

The prints are fixed in a hypo bath containing potassium metasulphite.

The Strength of the Fixing Bath.

Does a strong hypo bath fix more slowly than a weaker one? The answer generally given is in the affirmative, as a Cabinet Minister would say, the explanation being that the denser solution penetrates the film less rapidly than the solution of lower gravity. Some time ago I made some experiments in this direction and came to the conclusion that within reasonable limits the slow action complained of does not really exist. My experiments went to show that fixing really takes place in less time with a strong solution, but that there is considerable difficulty in washing out the dense solution after fixation is complete. It need hardly be pointed out that this is a very different matter from slowness of fixing. It seems also that, even if the slow action does exist, the orthodox explanation hardly holds, for it is generally easier to replace a light solution (in this case the water or developer in the film) with a solution of higher gravity than vice

versa. In my own experiments I rarely use a solution of less strength than 3 oz. of sodium hyposulphite to the pint—that is double the strength advised by plate-makers—and have frequently fixed plates in a one-in-one solution. For fixing bromide prints it is not advisable to use such a strong solution, but even here the trouble does not seem to be caused by the higher density of the fixer *per se*, but to the fact that the washing water enters the film more rapidly than the silver salts can leave it, thereby causing blisters and similar troubles. Whilst referring to this subject it would be as well to note that a negative which has been subjected to prolonged development will in any case take longer to fix than a normally treated plate, owing partly no doubt to the tanning action of the developer on the gelatin.

Optical Observations.

By a Chemist-Optician.

Colour Blindness.

The finding of the Board of Trade inquiry into the case of Mr. Trattles goes a long way to show that however useful and interesting the tests for colour blindness, as carried out in the official examinations, may be from a scientific point of view, they are far from satisfactory in practical application when the subject's future career is dependent on the results. Of the several methods of testing the colour vision, the commonest in use is the wool-test, as being the most convenient for the ordinary refractionist; but now that Dr. Edridge Green's lamp is obtainable at a reasonable price it should replace the older and less trustworthy methods.

An Optical Bench.

The suggestion I made in these notes (*C. & D.*, August 21, 1909, p. 349) in reference to a set of experimental apparatus for students has called forth in an optical contemporary a list of appliances of which "the cost of the whole would be of the same order as that of a good trial case." I am afraid this would spoil the idea, as 9*l.* or 10*l.* would be rendering the cost of the experimental set rather prohibitive, especially as it is not likely to be of any commercial value to the refractionist afterwards. What is really wanted is not an elaborate outfit, which would be more suitable to a well-equipped laboratory, but a simple and inexpensive one which every student would feel he could afford and could get his money's worth out of while studying.

The Evolution of the Chemist-Optician.

According to the "Optician," the following are the steps in the evolution of chemist-opticians :

"We notice that quite a large proportion of the letters we have received relative to the proposed measures for consolidating our optical-trade organisations come from members of the pharmaceutical profession; and we are led to remark that recruits to the optical trade are being drawn more and more largely from that source. It is but natural that the dispensing chemist, called upon so often to compound developing, toning, and other solutions for the ubiquitous amateur photographer, should acquire a taste for dabbling in the photographic art himself, followed by realisation of the commercial aspects—the profit to be made by providing a dark-room or undertaking development for his customers, handling photo-optical goods, and then *becoming an optician*."

Probably other factors are the intimate relations between the medical profession and pharmacists, the educational advantages possessed by chemists, and the readiness of those in the drug-trade to adapt themselves to the exacting requirements of the public.

Neutralising Lenses.

One part of the practical work which can be got up at home by every student is neutralisation. This subject gains a lot of credit at the examinations when well done, and in these days of cheap lens measures is often neglected by the beginner. The principal thing taken into account is the time required to neutralise the given lenses, and to become proficient it is good practice to look through every lens handled, so as to be able to judge approximately the power by the rate of motion of the cross-lines used as an object. This occupies a very little time, and soon becomes a habit, when a degree of accuracy will be attained which will

enable the student to neutralise an unknown lens with the first or second one taken from the trial case, with a corresponding saving of time. Only, do not forget that when the two principal meridians are found, and one has decided whether it is a plain spherical or a spherocylinder, there may still be a prism in it, or in the case of an edged lens it may be decentred to produce a prismatic effect.

Routine in the Testing-room.

The paper by Mr. Beardsall before the Manchester Optical Society on "Method in the Testing-room" contains several points about the importance of the retinoscopic test, which confirm the remarks I have made in these notes about the value of the test. The routine which I have always followed in testing, and which I have found very convenient, is as follows : (1) Take notes of the customer's name, address, age, and history of the complaint, with the details of previous treatment and glasses, if any have been worn; (2) examine the fundus by the indirect method, this being preferable to the direct process; (3) then proceed to the use of the retinoscope so as to get a good knowledge of the state of refraction, without having to depend on the customer's replies entirely; (4) follow this by the test types, taking the right eye first, and then the left, and, lastly, both together; (5) finally go through the reading tests, estimation of muscular weakness, or whatever else may be required by the particular case under examination. Every refractionist has his own favourite method, and by constant practice becomes familiar with it, and does better work in that way. I follow the above routine for the reason that by starting with the history of the case one may save a lot of time and trouble, especially if the customer has been under medical or surgical treatment at some previous date, as is sometimes the case. Then, by examining the fundus, one ascertains the presence or absence of any diseased condition, which will avoid further waste of time if there is anything radically wrong; and the retinoscopic correction can, with practice, approximate so closely to the one required, that it only wants confirmation on the test types. I also find it very convenient to put down the results as each is obtained, as it avoids all chance of mistake or forgetfulness.

Chemists' Windows.

Photographs of window-displays sent to the Editor for reproduction in this section should be accompanied by notes on how the windows were dressed, and, where possible, the results.

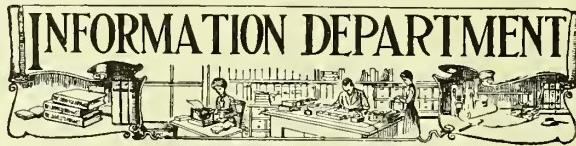


A General Election Display.

Mr. H. A. Martin, of Leicester, arranged the above. He writes of it: "One could not let such an opportunity as a General Election pass without making use of it for a window-display. White letters cut out by myself were used for the top of the window, because colours would have brought me into conflict with some of the political parties. When the

window was completed, however, I found that all the party colours were there—red for Socialism in some of the feeding-bottle boxes at the base, green for Liberalism in another feeding-bottle box, and blue for Unionism on the labels of the food. The cut-out babies formed a nice border, and show-cards (photo of one I send separately) were all that was necessary, together with showcards at ends—one of nursery-powder and the other of baby requisites, carried out in the same style as the centre ones. Half-a-dozen feeding-bottles stood at the bottom, with tickets in front, with prices, etc. The four main columns of food had to be supported at the back by means of board to prevent passing traffic upsetting them. I need hardly say that such a display gave a decided fillip to a line that has a steady sale with me."

A cod-liver oil display is described to us by a correspondent who saw it in Inman's, Northumberland Street, Newcastle-on-Tyne. An original barrel of Norwegian cod-liver oil is placed in the window and plentifully besprinkled with coloured cut-out pictures of a cod-fish, then surrounded by a big display of various size bottles of cod-liver oil and emulsion. The whole rests on a large sheet of mirrored plate glass, and makes a seasonable and effective display.



Postal Address:

C & D. INFORMATION DEPARTMENT, 42 Cannon Street, London, E.C.
Telegraphic Address: "CHEMICUS LONDON."
Telephone No.: BANK 852 (two lines).

The object of this Department is to supply names and addresses of Manufacturers of, or Agents for, goods pertaining to the Chemical, Drug and Allied Trades. The "Buyers' Guide" in each issue of "The Chemist and Druggist" affords much information, but enquiries for anything not referred to therein may be addressed to this Department. Replies will be furnished immediately, or inserted in this section free of charge.

INFORMATION WANTED.

We would be obliged if any reader would reply by postcard or telephone to one or other of the subjoined enquiries.

- 111/19. What is "Spelterine," and where obtainable?
- 116/12. "Linembroket" dry shampoo: makers or agents.
- 114/32. "Pamolia" Russian Violet soap: makers or suppliers.
- 108/4. London agents for "Bunot's Loo," a hair-curling fluid.
- 116/20. Makers (American) of homoeopathic phials in various sizes.
- 116/28. "Moulton's Pain Paint": who makes or sells wholesale?
- 115/64. "Vetain's Tablets for Infants": who manufactures or sells wholesale?
- 113/73. "Tripoleum Soap": used for varnishing purposes; where obtainable?
- 111/67. "Middleton's Good Samaritan Ointment": who is the proprietor, or who supplies?
- 115/4. "Karolo soap, made by the West End Soap Manufacturing Co., London, W.": where obtainable?

INFORMATION SUPPLIED.

During the past week we have answered enquiries regarding the following articles. The information will be repeated to any other enquirers who send to the Department a stamped and addressed envelope for the purpose.

- "Arsenauro," makers and agents (111/67).
- Artificial eyes, makers and wholesalers (111/24).
- Aymard's milk sterilisers, makers (112/61).
- Browne's bronchial troches, proprietors (110/69).
- "Bull" brand caustic soda, makers (114/72).
- Clarke's blood mixture, manufacturers (110/69).
- Cuticura soap, makers and agents (110/69).
- Decorated tin boxes, makers (111/43).
- Denthon, trade-mark (111/65).
- Dentol (liquid and powder), makers (111/65).
- "Dentola," makers (111/65).
- Eade's pills, maker (110/69).
- Elastic stockings, makers in Manchester (110/10).
- Epsom salt (commercial and refined), makers (111/20).
- Keate's kidney pills, makers (109/17).
- Malto - peptone yeast food, makers (112/10).
- "Old Moore's" preparations, proprietor (110/44).
- Oriental Balm," supply (110/7).
- "Pegin" food, supply (103/25).
- Printers of pictorial flower-seed envelopes (114/67).
- Razorine Manufacturing Co., address (110/55).
- "Regulin" tablets, makers and agents (113/66).
- St. Jacob's Oil, proprietors (110/69).
- "Sanoform," manufacturers (111/65).
- Shaving-cream in pots, makers (112/71).
- Soluble oil (from maize oil), particulars (111/37).
- Sugar manufacturers and supply (112/21).
- Sulphate of soda, makers in France (111/53).
- Veno Drug Co., address (106/45).
- Wilson Hygienic Lamp Co., particulars (108/64).
- Wrapping paper, brown and white, makers (104/25).
- X L C R ointment-tins, supply (111/68).
- Zinc chloride (commercial), makers (111/20).

Observations and Reflections.

By Xrayser II.

The Prescription Problem

of February 19 was particularly interesting, and is doubly so in the light of Sir James Sawyer's letter, into which, however, an error has somehow crept, *Dies Saturnii* having been written for *Dies Saturni*. It is scarcely surprising that the competitors did not "spot" the sign for the day of the week; for although when I was an apprentice the practice of entering the days in the prescription-book under their astrological names was still in use, it has, I suppose, ceased now. These names, by the way, were not used by the ancient Romans, who did not divide time into weeks of exactly equal length, as we do; but they came into use under the emperors, when the Egyptian week was adopted from the Greeks. They are the names of the seven planets, each of which was supposed to preside over an hour of the day in the order of its distance from the earth according to the geocentric system. That order was—Saturn, Jupiter, Mars, the Sun, Venus, Mercury, the Moon. Assuming that Saturn presides over the first hour of Saturday, the twenty-second hour will again fall to him, and, continuing this order throughout the week, the first hour of each day falls to the planet after which the day is named.

The Scepticism of Doctors

with regard to drugs appears to be growing, a fact of which the recent pronouncement of Messrs. Short and Salisbury is but one of many indications. It may perhaps be feared that the new school of medicine is inclined to be, if not too scientific, at least too suddenly scientific. "Medicine," as Dr. McWalter well says, is, however, "an empiric art," or has been so up to the present. We have taken physic much as we have taken food, because we felt the better for it, without knowing exactly why. But this easy-going method no longer satisfies us; we must now be able to explain before we will accept a fact. Is it not possible that we are letting our reason outrun our knowledge? We must know a good deal more about the properties of drugs and the constitution of our own bodies before we can be quite sure that this or that remedy or mode of treatment cannot affect creatures so variously compounded and so delicately adjusted as we are. Our forefathers were doubtless too credulous; reading the

Records of the Past

we wonder how it was that anybody ever suffered from disease, since every herb was "sovereign" for almost all complaints, but human credulity usually has some basis of fact; men *were* cured under treatment that we now hold in contempt, and possibly we are now going to the other extreme of scepticism. The presence or absence of the expectation of relief may make all the difference. Cure by suggestion is already accepted as of equal validity with cure by medicine; and without going the length of the more extreme "faith-healers" we may still hold that remedies of which we cannot explain the action may do good where good is expected. The mother who "kisses the place to make it well" eases her child's pain, and severe sickness reduces us all more or less to the condition of children. And there is always the chance that our "science" may be wrong.

Soda-water Making

on the small scale is, according to "F. E. B." a veritable gold mine, a turnover of 70*l.* a year yielding a profit of 56*l.*, but there are some items that "F. E. B." should have included before striking his balance

of profit and loss. Take labour, for instance, which he expressly excludes. The work involved in cleaning, polishing, filling, and labelling, not to mention delivering, three or four thousand syphons, must have taken a good slice out of the porter's time, and this might safely be put at 10*s.* a week. Possibly "F. E. B." fills the syphons himself, and looks on it as a hobby. The moment, however, that a man puts down the proceeds of a hobby in pounds, shillings, and pence, the occupation ceases to be a hobby, and the time spent on it should be reckoned as of so much money value. "F. E. B." speaks of advertising the analyst's certificate prominently. You do not get much prominence at 2*s.* a week, but if we let it go at that it represents 5*l.* 4*s.* a year. Then his capital is locked up, and this is surely worth 5*l.* a year, so that these three items alone amount to 36*l.* 4*s.*

The Loss on Syphons

is allowed for by a modest 5 per cent. as depreciation. What will "F. E. B." say about this five years hence? For a perishable article like syphons this is an absurdly small allowance; 25 per cent. would have been nearer the mark. But, say, 20 per cent. on syphons only and 5 per cent. on the rest of the plant, the depreciation runs to 17*l.* a year, making a total not allowed for by "F. E. B." of 47*l.* 4*s.*, which reduces his true net profit to something like 9*l.*, or about 13 per cent. on his turnover. Previous to taking up the manufacture of soda-water "F. E. B." did a syphon business of 39*l.* a year, with a net profit of 10*l.* 14*s.* 6*d.*, which is equal to 27*l*¹₂ per cent., or more than double "F. E. B.'s" own make profit. On the whole he does not seem to have made much out of his venture as yet, and that was my own experience as a manufacturer "in a small way."

The Harebell

(*Hyacinthus non scriptus*) is so called for the reason that "E. J. C." unconsciously supplies, that is, because, as Phillips says in his "Flora Historica," it is "so frequently found in the thickets frequented by hares." It is undoubtedly of this flower that the almost forgotten poetess Charlotte Smith speaks in the lines—

"In the lone copse, or shadowy dell,
Wild clustered knots of harebells grow,"

for the description would be quite inappropriate if applied to the wild campanula. Our old herbalists are unanimous in the same sense, and with the poets contemporary with them the harebell is always a flower of the early spring. The meaning of the name is sufficiently indicated by its old form "Haresbells," which occurs in Gerard, in Parkinson, and in Littleton's Latin Dictionary. The form "Hairbell," though Johnson unfortunately adopted it, has no authority, and is indeed non-existent in actual early use. It refers, of course, to the slender stalk of the campanula, and Lindley tried to establish it as the name of that flower, while retaining the form "Harebell" for the hyacinth; but the only result has been to make confusion worse confounded. The earliest known literary occurrence of "Harebell" as the name for the campanula is in Mickle, who was a Scotchman; Burns uses it in the same sense, and after him Southey, who ought to have known better; but many, if not most, of our English poets still apply it to its true owner. Unfortunately our gardeners have a bad habit of being Scotchmen, and they help to keep alive the other usage.

MR. THOMAS BEECHAM AND MR. JOSEPH BEECHAM, his father, have, we are told, been hinting at other great surprises in store for opera-goers. Not so long ago, it may be remembered, we prophesied that it might be possible, with the aid of Mr. Beecham, to obtain for a shilling a box worth a guinea.—*Punch*.

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Editorial Articles.

Cod-liver Oil Dearer.

SEVERAL interesting features concerning the production of Norwegian cod-liver oil this season deserve greater emphasis than usual. Our Trade Report has week by week accurately reported the situation in the primary market, and the most prominent fact is the gradual and steady upward movement which set in immediately it became apparent that the extraordinarily rich productions of 1909 and 1908 were not to be repeated this year. Has the cycle of fat years (we have had five in succession) come to an end? Reviewing this season's records we find that the price of Norwegian cod-liver oil has appreciated more than 25 per cent., the price having risen from 73s. to 100s. per barrel c.i.f. terms for finest non-freezing Lofoten oil, so that on the average we may expect much higher prices to rule throughout this year. The Lofoten fishing, which commenced in January and closes at Easter (whether the festival be early or late), has proved very irregular, and although the number of fish caught to date exceeds by 1,400,000 the figures for the corresponding period of 1909, yet the production of medicinal cod-liver oil is 3,756 barrels or 4,357 hectolitres less, the latest official figures for the whole country to March 19 showing a total catch of 22,700,000 and a yield of 17,622 barrels or 20,442 hectolitres of medicinal oil. In summarising the principal features of the market during 1909, we stated that "the general opinion in Norway is that the livers will be leaner next season." This was a correct prophecy. Early in February it was evident that the livers were both smaller and leaner than in 1908 and 1909, the oil-yield being 10 to 15 per cent. less. The full realisation of these facts and the irregular fishing brought about a rapid and substantial advance in price, so that during February up to 85s. and 95s. was paid for new oil which at that time was being produced in small quantities only. To the disappointment of many who had bought, the market fell away by several shillings when news of improved fishing was received, but partially recovered again last week when it transpired that the week's production of Lofoten oil was only 1,600 barrels from 2,800,000 fish. This has led to the withdrawal of some offers, and it is stated that considerable quantities of oil have been warehoused in the hope of higher prices being paid later. It is also said that even at present quotations it does not pay to produce steam-refined oil in the Lofoten district, as livers are costing proportionately more. The first half of the fishing is now practically over. After the holidays the fleet will repair to Finmarken, where fishing continues until the end of June, when possibly the deficiency of the earlier part of the season may be made good. The best fishing at Finmarken is from April to June, but as a matter of fact there are four distinct fisheries at Finmarken—January to March (which is small), April to June (which is good), and the autumn and winter fishings. The Finmarken results must always be taken into account in estimating the value of the year's catch, although the oil is inferior to that of Lofoten simply

because the livers are not in such good condition in the warmer weather. During the past few years the fishing at Lofoten has been concentrated in West Lofoten, which has become overcrowded with boats, but in our issue of March 5 it was reported that there were good prospects for the eastern part of Lofoten, where the cod had not appeared for many years. These prospects, however, did not materialise and the hope of a productive fishing at that centre has been abandoned. On this point Mr. William Bousfield writes :

"I am interested in the remarks in your Trade Report on the Lofoten fishing and the East and West Lofoten Islands. It is well to remember that this does not mean the East and West Coasts of the Lofoten Islands, as the Western Coast of Lofoten, being exposed to the full force of the Atlantic, is useless as a fishing-ground. All the fishing-stations are on the East Coast of the Lofoten, but, owing to the outline of the coast on the south bearing to the west, this part is called the West Lofoten, and the northern part of the coast is called East Lofoten. This was explained in my article published in the *C. & D.* of April 22, 1905."

The latest intelligence which is given in our Bergen cablegram states that the prospects for fishing at Finmarken are good, and that the market closes firm at the equivalent of 96s. 6d. per barrel c.i.f. terms, an advance of 3s. on last week's prices. At the moment buyers on this market are nonchalant, in spite of the upward movement.

B.P. Essential Oils.

In our issue of March 12 we gave a tabular statement of the characters of the essential oils official in the British Pharmacopœia, and those suggested for inclusion in the next edition of that work, embracing the proposed standards as suggested by Messrs. Hill and Umney, with those contained in the present edition of the Pharmacopœia, in Squire's "Companion," in Parry's "Essential Oils," and certain suggestions made by *C. & D.* correspondents. In view of the importance of the subject, we propose to balance all the evidence, so as to show in what directions it appears that the present standards, or those suggested on behalf of the Committee of Reference in Pharmacy, may be advantageously modified.

Ol. Anethi.—The present standard of specific gravity, 0.905-0.920, appears to be the most satisfactory, as the limits proposed by Hill and Umney would exclude some of the finest English oil; the lowering of the specific gravity to 0.900 would tend to encourage the extraction of carvone, and exceptional oils of sp. gr. 0.900-0.905 could easily be bulked so as to bring them within the official limits. Although pure oils are found down to sp. gr. 0.895, most of such oils below 0.905 are described by Parry as "indicative of the abstraction of carvone." The proposed narrow limits of +70° to +75° for optical rotation are unnecessary: +70° to +80° appear to be almost generally agreed upon.

Ol. Anisi.—We think Hill and Umney place the congealing and melting points too low. The *true* congealing-point—that is, the temperature to which the oil rises during the process of congelation—is rarely less than 14°, and the melting-point rarely less than 17°. This, with the other proposed figures, would include all pure samples except, perhaps, those which may have oxidised by being kept for a very long time.

Ol. Anthemidis and *Ol. Cajuputi*.—The proposed standards appear to be generally agreed upon.

Ol. Carui.—There seems to be no reason for reducing the limits of optical rotation to +75° to +82°. This might exclude some genuine oils, as most authorities agree that +70° to +80° or even +85° are reasonable limits. Parry, Burgess, and Simmons agree that the sodium-sulphite process yields accurate results for the determination of carvone. This process should be included, as it is more exact than a fractional-distillation test.

Ol. Caryophylli.—Opinion has been generally expressed that 80 per cent. of eugenol is too low a standard; 85 per cent. would include all good samples, and probably nearly every pure sample. The other proposed standards are accepted by most authorities.

Ol. Cinnamomi.—It is difficult to understand the fact that a well-known firm of English distillers are at variance with all other authorities as to the specific gravity of this oil. The

weight of evidence is strongly in favour of the proposed standards, except that the aldehyde value appears to be fixed too high.

Ol. Copaiba.—These values appear to be fair and generally acceptable. They may exclude a few genuine oils, but not many. There is something to be said in favour of lowering the specific gravity to 0.890, as suggested by Messrs. Sachse & Co.

Ol. Coriandri.—The figures are generally agreed to. The oil is not largely used, and it would rarely be necessary to determine the alcohols as suggested by Simons.

Ol. Cubeæ.—No difference of opinion appears to exist in regard to the proposed standards for this oil.

Ol. Eucalypti.—The only difference of opinion among authorities is upon the eucalyptol-content. It is probable that many oils with sp. gr. 0.910 would not contain more than 50 per cent., and this figure might well have been suggested. Naumann's suggestion of 70 per cent. would exclude half the pure oils imported, especially those of *E. globulus*, and even those proposed by Hill and Umney will, of course, exclude many pure eucalyptus oils.

Ol. Juniperi.—The general consensus of opinion among analysts is that specific gravity should not fall below 0.865, and some manufacturers would place it higher. There appears no need to put it so low as 0.862. With regard to the optical rotation, both Schimmel and Parry have pointed out that Hungarian oils are often as high as -18°. Unless it is intended to exclude these oils, the optical-rotation figures require revision.

Ol. Lavandula.—Almost universal experience shows that 30 per cent. of esters will exclude many pure oils; 25 per cent. would seem a fair lower limit. The upper limit of specific gravity is high, and might be reduced slightly.

Ol. Limonis.—The experience of the past two seasons has shown that +57° would be a fair lower limit for optical rotation; also that sp. gr. 0.860 excludes numerous pure oils. Otherwise there is general agreement as to the proposed figures.

Ol. Menth. Pip.—No exception is taken to these figures, except that a total of 50 per cent. menthol is lower than is generally accepted: 55 per cent. would appear a better value. These figures would exclude certain American oils, but as solubility in alcohol is of practical importance, such oils could be re-distilled and so brought into accord with the standards proposed.

Ol. Menth. Viridis.—The limits proposed include nearly all pure oils, but Schimmel and Parry agree that occasionally pure samples have a much higher specific gravity. It would be unwise, however, to enlarge the limits for the sake of a few abnormal oils.

Ol. Myristica.—The proposed figures are approximately those agreed upon by all authorities.

Ol. Pimenta.—It appears generally agreed that the specific-gravity limits are too narrow, and genuine English distilled oils would be excluded. This value requires amendment; otherwise agreement appears to be general.

Ol. Rosa.—Recent opinions of analysts show that 0.850 would be a better lower limit of specific gravity; 0.855 would exclude, in some seasons, nearly every pure sample distilled.

Ol. Rosmarini.—There appears no reason to exclude Spanish oils. The fact that these are frequently laboratory has been established by Parry and Bennett and confirmed by Schimmel. The exclusion of these Spanish oils is no doubt intentional, but the reason is not clear.

Ol. Santal.—The experience of distillers justifies the enlarged limits for specific gravity, and we think that it is also wise to retain the optical-rotation values of the 1898 edition, as oils with abnormal optical rotations are only rarely obtained, and can easily be bulked with high rotation oils. Ninety-per-cent. of santalol is as low as can possibly be fixed, and probably 92 per cent. would have met nearly every case of pure oils. The criticism of one firm of distillers as to the active principle alone being admitted overlooks the principle expressly proposed.

Ol. Sinapis.—The lowering of the upper limit of specific gravity does not appear to be necessary, and general opinion seems to favour the present official figures.

Ol. Terebinthina.—The figures include most genuine commercial oils. The omission of an optical rotation appears to intend the inclusion of French oil, and the limits of specific gravity seem to exclude Russian oil. Limits of fractional distillation should be included, as they would assist in detecting the presence of rosin spirit and other adulterants.

Ol. Aurantii.—The slightly extended limits suggested by Evans might be adopted, as certain Jamaican oils would otherwise be excluded, which is hardly intended by Hill and Umney.

Ol. Gaultheria.—The figures meet with general acceptance.

Ol. Fæniculi.—The higher limit of specific gravity, 0.990, appears to be unnecessary; otherwise the figures meet with general agreement.

Ol. Pini.—These figures are generally accepted.

OI. Thymi.—The lower limit of specific gravity, 0.920, is much higher than that agreed to by other authorities; otherwise the figures are right. Simmons's suggestion to use 10 per cent. KOH for absorption of the phenols does not appear to be generally supported. With a specific gravity of 0.905 to 0.950, all pure samples would be included.

Since the foregoing remarks were written several considerations have been raised by Messrs. Sachsse & Co. in a letter printed in our correspondence column. Objection is taken by them to the introduction of the refractive index figures and fractionation tests—to the former on account of the fact that the greater number of consumers would not have the necessary instrument for making the determination; to the latter because the results depend so much on the details of working. The former objection can carry little weight, unless the Pharmacopœia is intended merely as a book to guide the retailer of the substances which it controls. The introduction of the polarimeter is open to the same objection, but no one would now suggest the omission of the data which it furnishes. In fact, we have long since passed the stage in Pharmacopœia compilation, in this and other countries, when the retailer's resources alone are kept in view; and compilers must utilise the best means of testing regardless of who is to be the tester. With regard to the fractionation tests, it would certainly be wise if the method were accurately described, as to the type of flask, etc. It will be remembered that the point as to how far the Pharmacopœia is to be merely a guide to sellers, or to be a standard in fact (as it is to a great extent in actual practice, and is likely to become to an even greater extent in the future), was raised by Mr. E. J. Parry in the discussion on Messrs. Hill and Umney's Paper at Bloomsbury Square. He advocated the reverse principle to what Messrs. Sachsse & Co. put forward, and urged that wider and fuller standards and methods should be included so as to make the Pharmacopœia an effective standard book of reference. Messrs. Hill and Umney did not, however, agree that this course is necessary or advantageous. It certainly is a question involving large issues, and cannot be dispensed of by a summary discussion.

The utility of prior publication of proposed alterations in Pharmacopœia standards is proved by the publication of Messrs. Hill and Umney's communication to the Pharmaceutical Society. This is the first time this course has been attempted, and it is interesting to observe that the German Pharmacopœia authorities are adopting the same course. Other means of obtaining the opinions of known experts on the subjects have hitherto failed to completely eliminate error or divert criticism. It remains, of course, to be proved how far the new method will meet the wants of the case, but there can be no two opinions about the fact that it is a rational experiment devised for the good of all interested, and it is in that spirit that we have endeavoured in these and preceding notes to discuss the subject. It is expected that the next contribution to the publications on Pharmacopœia revision will deal with certain galenical standards. Two other members of the Committee of Reference are at present working on the subject.

Dubious Co-operation.

ALTHOUGH the conditions of pharmacy in the United States are different in many respects from those in the United Kingdom, there are points at which they touch, and we may learn something from the trials of our American cousins. These are from time to time set forth by a

competent American pharmacist in the letter which we publish periodically. At present the vicissitudes of the National Association of Retail Druggists are uppermost in the American drug-trade. That body was founded shortly after our own P.A.T.A., to prevent cut rates in proprietary articles. Its scheme was condemned on this side from the first as being unworkable and of doubtful legality, and both have proved to be the case. Latterly the N.A.R.D. has been kept alive by a new propaganda, which is to combat the sale of proprietary medicines by popularising the preparations of the U.S.P. and National Formulary. Along with it an American Druggists' Syndicate has grown into an organisation of 10,000 or more pharmacists, who have entered co-operatively into the purchase of chemists' supplies and the manufacture of druggists' specialities. The membership of the N.A.R.D. and A.D.S. is identical to a considerable extent; the officers of the N.A.R.D. are nearly all of them members, and some of them officers, of the A.D.S.; and Mr. Charles H. Huhn, of Minneapolis, is now President of both organisations. The growing inter-relationship between these two bodies of chemists has now provoked a fierce assault from the American Medical Association. In its U.S.P. and N.F. line of effort the N.A.R.D. has developed a great organised campaign, carried out by the local branches throughout the country, for the purpose of weaning American physicians away from the use of proprietaries. The American Medical Association now makes the point with great force that the druggists stand convicted out of their own mouths. On the one hand, they are apostles of official medicine and ethical prescribing; on the other, as members of the A.D.S., they make a line of proprietary medicines with which they go direct to the public in competition with physicians. That this position is highly incongruous is the charge brought in two bitter articles published in the "Journal of the American Medical Association" recently. Among other things, the "Journal" declares that

"The N.A.R.D. has within the past few months entered into a *mésalliance* with the patent-medicine evil in its most insidious form. It has become apparently a creature of a co-operative patent-medicine concern comprised of a number of its own members. If the retail druggists are sincere in the propaganda which they instituted with the object of weaning physicians from the unreliable and mystery-provoking proprietaries back to prescribing official and non-secret preparations, then let them at least be consistent. . . . The self-respecting druggist can assert himself in this matter none too soon; that the profession has so far forgotten its ideals as to lend its support to the vicious 'patent-medicine' business is a standing advertisement of shame to the retail pharmacy business of this country."

This seems to present the retail druggists of the United States with a two-horned dilemma—either the manufacture and newspaper exploitation of co-operatively produced proprietary medicines must be abandoned, or propaganda efforts among the physicians must be given up. Pharmacists also are confronted with two alternatives: they can solicit the patent-medicine business of the public, or they can invite the support of the physician. It would seem that they cannot have both. Many factors influence indecision, and in the meantime the contest is of keen interest, national in scope, and pregnant with possibilities for the future. The result is worth watching by British pharmacists, who are not without examples of co-operative movements.

Iodide Mixtures.

The North British Branch of the Pharmaceutical Society has a surprising aptitude in its evening meetings of striking subjects which interest every-day pharmacists

who have to encounter difficulties, and have not the time to work out the scientific explanations of them. At the meeting reported in this issue Mr. J. Tait commented upon a mixture containing potassium iodide and hydrobromic acid, which soon became brown due to liberation of iodine; he added the interesting observation that the coloration is prevented by addition of a fraction of a grain of sodium hypophosphite. There appeared to be some scepticism about the influence of sunlight in such decompositions, which reminds us of the work of Albert R. Leeds ("Jour. Am. Chem. Soc." and "Pharm. Jour. and Trans.", 3, IX., 1017) over thirty years ago, in which he conclusively proved that acid solutions of iodides quickly liberate iodine in sunlight, electric light, and magnesium light. He also determined the effect of heat on such solutions. We mention this paper, as the majority of dispensers, and even those of them who investigate iodide subjects, appear to be ignorant of Leeds's work. Read in the light of modern knowledge of solution, the paper is still suggestive as well as explanatory. Leeds mentioned that in 1845 there was a sharp controversy between Schönbein and Fischer as to whether dilute solutions of potassium iodide would undergo decomposition in presence of free acid: Schönbein attributed free iodide in such solutions to presence of iodate; Fischer said that the liberation of iodine was due to the acid. It is curious to note that this Chemical King Charles's head was floating about York Place, Edinburgh, ten days ago.

Sykes' Hydrometer.

The Finance Act, 1907, legalised new methods of ascertaining the proof strength of spirits, practically in order to give effect to the results of a series of experiments which had been going on for some years in the Government Laboratories under the direction of Sir Edward Thorpe, C.B., F.R.S. We have since referred to the matter from time to time, and it appears that the effects of Sir Edward's investigation may soon be realised. At the recent presentation to him he said :

"For many years past it has struck him as somewhat of an anomaly that this country should still be content to use a set of tables and a kind of apparatus which was prescribed so far back as the middle years of George III. He referred to Sykes' hydrometer. He thought that while these tables and that apparatus were regarded by the average Excise official with a sort of holy reverence, the time had come when some more accurate means of determining the revenue value of alcohol must be devised. Ever since England had set the example of collecting revenue from alcohol other countries had followed in its wake, but with this difference, they have had to undertake careful investigations connected with alcoholic determination. As a consequence of the work done by France, Holland, and Russia, this country is now in possession of an extraordinary amount of valuable data. It had always struck him as foolish that they had not taken advantage of that information. However, a great deal of work had been done latterly, and he hoped soon to put the Board in possession of a set of tables which should be the most accurate tables yet seen."

Sykes' hydrometer, with which Customs and Excise officers have for generations tested spirits, is believed to have served its purpose well, and it will not be parted with without regret. Although it may not be in strict accordance with the scientific principles of to-day, it is still efficient for revenue-collecting purposes, and may, by new calculations set forth in tables, be used with efficiency. The Government Laboratories have long ceased to rely upon Sykes' hydrometer, and use more accurate methods and more precise instruments (such as the refractometer) for alcoholimetry. Whatever the change of method for outdoor work may be, we presume it will retain Sykes' simplicity of apparatus, and be chiefly revolutionary in the new factors for various strengths of alcohol at different temperatures which have been ascertained by modern

methods under Sir Edward Thorpe's supervision. These new tables are awaited with the greatest interest by users and vendors of spirits in the United Kingdom.

A Hospital Galenical Factory.

The "Hospital Gazette" has published a paper by Mr. Hocking, B.Sc., in regard to the drug-supplies of hospitals, in the course of which the author suggests the abolition of all the galenical laboratories for large and small hospitals in London and the establishment of one great central warehouse, laboratory, buying centre, and distributing agency for the whole of the Metropolitan voluntary hospitals. He puts the approximate annual turnover for such a place at 70,800*l.* He gives a list of the staff which would be required, and mentions the possibility of a combination of wholesale houses, with a view to boycotting any such attempt. He estimates the capital required as not less than 20,000*l.* This is not the first time that a suggestion of this kind has been put forward, and, we presume, the chief reason why it has not caught on is that the need for a central institution of the kind has not been proved. It would give a few more good positions to pharmacists, it is true, but without materially reducing the number at present employed in hospital dispensaries.

The Antiquity of Spermaceti.

The controversy regarding the authorship of the Flora bust which Dr. Bode acquired for the Berlin Museum in the belief that it was the work of Leonardo Da Vinci has been revived by the publication by Dr. Pinkus of the analysis of the wax composition of the bust. This was referred to in the *C. & D.*, March 19, p. 438, in connection with the *obiter dictum* of Dr. Pinkus that spermaceti was not known before 1700. The earliest quotation advanced so far is by the "Daily Chronicle" from Ripley's "Compound of Alchemie" 1471, where mention is made of the use of "Sperma Cete with red wyne when ye wax old." There is, of course, the well-known Shakespeare quotation in "Henry IV," Part I., Act 1, Scene 3 :

The sovereign't thing on earth was parmaceti for an inward bruise.

Dr. Emil Reich, in "The Times," states that spermaceti was known to the school of Salerno at about 1100; only, as M. H. Beauregard says ("Matière Médicale Zoologique," Paris, 1901, p. 195), that school *le confondent avec l'ambre gris*. In Conrad Gesner's "Historia Animalium" (Zurich, 1558, p. 242) there is an elaborate statement about the way in which spermaceti was then (middle of the sixteenth century) produced for the market. Gesner evidently treats spermaceti as something of ordinary occurrence. In Car. Clusius's (*L'Ecluse*) "Exoticorum libri decem" (1605) there is likewise much about spermaceti. In 1692 Sir Robert Sibbald wrote quite a treatise on spermaceti in the fourth chapter of his work, "Phalænologia nova," quoting much older authorities. "Spermaceti," he says, "is called *Whale Shot* by the English, and *Scale Amber* by the Scotch." We may also quote Woodall (1639), who, writing of spermaceti, says : "It is good also against bruises inwardly taken with Mummia." Culpeper (1695) says : "Sperma Ceti is well applied outwardly to eating ulcers, and the marks which the small-pox leaves behind; it clears the sight, provokes sweat. Inwardly it troubles the stomach and belly, helps bruising and stretching the nerves, and therefore is good for women newly delivered." Dr. James (1747) describes it as "a noble medicine," and refers to its chief uso for outward application in small-pox to prevent the pitting. The ancients were much puzzled as to the origin of spermaceti, whether animal or mineral, but Pomet affirms with certainty that it is the brain of the whale, as he had seen it prepared from the contents of the head of the whale. With the controversy as to the genuineness of the bust we are not concerned, but it should be added that Dr. Pinkus bases his premises on the fact that analyses of the composition used in figures known to have been made by Lucas and that used in the Flora bust are identical in composition.

Pharmaceutical Society of Great Britain.

NORTH BRITISH BRANCH.

A N evening meeting was held at 36 York Place, Edinburgh, on Wednesday, March 16, Mr. J. P. Gilmour (Chairman of the Branch) presiding. The first paper read was on

SOYA SEEDS AND OIL.
By W. B. Cowie, Ph.C., F.C.S.

In the course of this communication the author stated that the plant which yields the seeds is indigenous to China, Manchuria, Korea, Japan, Formosa, and Indo-China. The seeds contain 18 per cent. of oil and 30 to 40 per cent. of proteins. In China yellow, green, and black varieties are known. In Manchuria the oil is expressed in a primitive fashion, but the yield is 15 per cent., compared with 10 per cent. by modern machinery. The expressed meal in cake form constitutes one of the staple foods of the country, and forms an important article of export. In 1903 198,680 tons of beans, 8,000 tons of soya-bean oil, and 273,000 tons of bean-cake were shipped from Newchwang alone. All the suspicion attached to the soya-bean meal seemed to have been caused by admixture with Java beans, which contain an appreciable amount of cyanogenetic glucoside. The large quantities of soya meal used in China is ample proof that it is a harmless and excellent food. The author gave the results of his examination of a sample of soya-bean oil which was exhibited by Mr. Blyth Leith at the last meeting compared with others, as follows:

	Cowie	E.S.L. & W.	Lewkowitsch
Sp. gr. at 15° C. ...	0.925	0.926-7	0.924-7
Ref. ind. at 20° C. ...	1.457	—	—
Acid value	2.24	1.75-7	—
Sapon. value	196	195.6	190.6-192.9
Iodine value	131	142	121.5-124
Do. of fatty acid ...	120	130.4	122

The oil was substituted for olive oil in B.P. liniments of ammonia, lime, and camphor, and nitrate of mercury ointment. The liniments are presentable, particularly the camphor, but the others are not so white as when made with the official oils. The ointment is a complete failure and of a chocolate-brown colour, the colour being no doubt due to the linoleic acid. It is reported that the Chinese Government may prohibit the exportation of soya beans for State reasons, and as to this the author said that if the Manchurian supply is cut off Japan may make good the deficiency. In Japan there are 11,000 installations, in which about two and a half millions of hectolitres of beans are expressed and treated per annum by a kind of fermentation produced by *Aspergillus oryzae* for the preparation of the liquid soy. Soya-bean cake has been shipped to Europe, but, on account of the deterioration which it is liable to undergo on the long voyage, as also on account of the difficulty of disposing of the cakes, attempts in this direction have been abandoned.

The discussion on the paper was opened by Dr. WATT, who commented chiefly upon the analytical figures; then Mr. GILES (Aberdeen) spoke of the value of soya as an agricultural feeding-stuff; and Mr. WILSON followed him with remarks on the oil, stating that from examination of two specimens he found no evidence of decomposition; but opinions seem to differ on this point. He heated his specimen to 300° F. without apparent change, but a fried-fish shop that used refined soya oil found that it gave off an unpleasant odour which offended the proprietor's customers. Referring to the analytical figures, Mr. Wilson said the iodine-value was very important. The use of oil in the manufacture of linoleum depended on that. He added that for feeding-purposes soya-bean is never used alone, but only to the extent of 25 per cent. along with linseed or other feeding-stuffs. He knew of one instance of a cow-feeder who employed soya-bean cake, and he declared that a great increase in the quantity and quality of the milk had resulted.

Mr. McEWAN, Mr. FORRET, and Mr. J. R. HILL also spoke. The last-named said something like fourteen or fifteen varieties of the beans have been sent from Manchuria, most of which occur now and again in commercial samples. It looks as if there is quite a large variety of seeds which come commercially under the designation of

soya. They look different and probably belonged to different plants. The sample of soya-bean oil which Mr. Wilson had shown was very like one which he saw at a recent meeting of the Glasgow Chemists' Association, shown by Mr. McMillar, but there was no suggestion of the reddish tint in the sample shown by Mr. Cowie which the others had. Mr. McMillar had reported that his sample was not successful in making liniment of ammonia, and he (Mr. Hill) thought it developed an unpleasant odour.

Mr. COWIE, in reply, said that for pharmaceutical purposes one point in favour of this oil is that it remains liquid at a low temperature, but the odour is against it. He had used Wij's process in preference to Hübl's for the iodine-value.

Mr. WILSON added that the soya-bean is about 4*l.* per ton cheaper than linseed, and the CHAIRMAN thanked Mr. Cowie.

The next paper was on

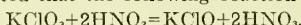
AN ETHYL NITRITE AND POTASSIUM CHLORATE MIXTURE.

By Donald McEwan.

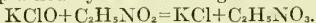
This was a description of a series of experiments on the following prescription:

Potassi chloratis	...	...	...	5ij.
Digalen	...	...	...	5ij.
Spirit. aetheris nit.	...	...	...	5ij.
Tinct. card. co.	...	...	...	5ij.
Aquam ad	...	...	...	5vj.

When dispensed the mixture is clear and has the pinkish-red colour of the cochineal of the compound tincture of cardamoms. In about twenty minutes the cochineal colour entirely disappears, and there remains a yellowish-brown muddy mixture, which gradually deposits a yellowish-brown precipitate, the supernatant liquid being bleached almost water-white. It was found that by first neutralising the spirit of nitre with potassium bicarbonate the bleaching effect was retarded, taking thirty-five minutes instead of twenty minutes with the unneutralised spirit. Solution of ethyl nitrite produced the same bleaching effect. Thin sharp-edged tubular crystals of potassium chloride also separate to the extent of about 19 grains, although the alcohol-water solvent should by theory retain it all, and experiment proved that no crystals separate if tr. card. co. made by McCutcheon's formula ("P.F." p. 961) is used. The bleaching is due to hydrolysis of ethyl nitrite into nitrous acid, and of that into nitrous anhydride and oxygen. It was found that the same result followed when sodium nitrite solution was used. During the experiments the interesting discovery was made that by mixing the spirit of nitre with the aqueous solution of potassium chloride, allowing them to stand for three or four hours, and then adding the tincture of cardamoms, practically no bleaching took place, and the distinctive odour of the compound tincture of cardamoms was not destroyed. The author suggested that the following reaction occurs:



The potassium hypochlorite at once oxidises or bleaches the colouring matter of the tincture, and is reduced to chloride. The reason why bleaching does not occur when the nitrite and chloride remain a few hours in contact before addition of the tincture is explained by the following reaction:



In any case ethyl nitrite is destroyed and replaced by ethyl nitrate. The possible action of the mixture on the glucoside in the digalen was also discussed, and the author came to the conclusion that it also is destroyed, so that the prescription is a good example of chemical incompatibility.

Mr. COWIE, Mr. DUNCAN, and Mr. HILL took part in the discussion which followed, but nothing new was added. The Chairman, in summing-up, questioned if potassium chloride dissolves in the proportion of 1 in 16 of water. In Glasgow a solution of 1 in 20 frequently crystallises. [One in 24 is the usual strength of the dispensing solution.—EDITOR C. & D.] The next communication was on

A HYDRIODIC ACID MIXTURE.

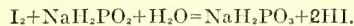
By J. Tait, Ph.C.

Potass. iodid.	...	...	...	5ij.
Act. hydrobrom. dil.	...	...	...	5iv.
Aquam chloroformi ad	...	...	...	5vj.

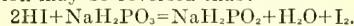
In a short time the solution becomes yellow, and the colour gradually darkens until the mixture is dark brown. Chloroform-water, tap-water, distilled water, boiled and cooled distilled water gave the same result.

The addition of half a grain of sodium hypophosphite to each fluid ounce of the mixture prevents the liberation of

iodine, but as little as $\frac{1}{16}$ grain per oz. suffices if the mixture is kept in the dark or in diffused light. The coloration is due to interaction between potassium iodide and hydrobromic acid; the resulting hydriodic acid then reacts with oxygen, liberating iodine. The effect of the hypophosphite is thus explained:



On exposure to direct sunlight it is probable that the foregoing reaction may be reversed thus:



On placing the solution in a dark place the reaction reverts to the original condition and the solution becomes colourless. The sodium hypophosphite in very small quantity may be regarded as a retarding catalytic agent because of its preventing the liberation of iodine. An experiment was made with a saturated solution of iodine in water to which half a grain to the fluid ounce of sodium hypophosphite was added. The colour was not discharged, evidently owing to the iodine being in the molecular condition, while in the mixture the iodine, though free, is in the ionic condition. This explains why a mixture that has become decomposed and brown coloured in the absence of sodium hypophosphite may be quickly restored to the water-white condition by the addition of $\frac{1}{2}$ grain of sodium hypophosphite to each fluid ounce.

The paper was discussed by Mr. COWIE, Dr. WATT, Mr. GILES, Mr. DUNCAN, and Mr. HILL. All were more or less sceptical about the explanation. Mr. Cowie thought chloroform-water would make some difference by carrying more iodine into solution. Dr. Watt suggested that the iodide contained iodate; he had rarely come across a sample without iodate. Mr. Duncan thought the presence of a minute quantity of iodate could not be the sole reason for the decomposition. The quantity of free iodine in the mixture was only as much as water would retain in solution. He thought if Mr. Tait kept the solutions for six months he would find that iodine would be liberated and oxidation would have proceeded to the stage of phosphate. Mr. Hill said the very interesting point as to the colouring of the solutions in direct sunlight and their returning to a water-white did not seem to have been touched upon by any previous investigators, and presented an entirely new aspect of the question. Apparently heat had little to do with the change. He had, at the beginning of the meeting, placed a tube containing the solution with $\frac{1}{16}$ gr. of sodium hypophosphite per fluid ounce, and it would be seen on comparison with a control tube that there was no development of colour, although the solution had sensibly increased in temperature. Mr. TAIT then replied to various points, his reply showing that he had anticipated most of them in his paper. Apart from these, he remarked that in some recent work on the absorption of iodine by hypophosphorous acid, it had been shown that in the acid condition the degree of oxidation proceeds only so far as phosphite, whereas in an alkaline condition it proceeds to the stage of phosphate.

The CHAIRMAN, speaking as to the possible irritant action of the iodine liberated, recalled an occasion in which a doctor prescribed potassium iodide and tincture of perchloride of iron, by which a large quantity of iodine was set free. The doctor, when his attention was drawn to the matter, said he had prescribed the mixture hundreds of times, and had never met with any difficulty. The mixture was dispensed as prescribed, and the patient made no complaint.

Votes of thanks were accorded to the authors of the papers.

New Books.

Any of these books printed in the United Kingdom can be supplied, at the published price, to "C. & D." subscribers on application (with remittance) to the Publisher, 42 Cannon Street, London, E.C. These notes do not exclude subsequent reviews.

Buckley, J. P. *Modern Dental Materia Medica Pharmacology and Therapeutics*. $9\frac{1}{2} \times 6$. Pp. 394. 10s. 6d. net. (Rebinan.)

Crinon, C. *Recueil des Médicaments Nouveaux*. 17th ed. 6×4 . Pp. 436. 4f. (Vigot, 23 Place de l'école de Médecine, Paris.) [The new remedies in this edition include abanon, aperitol, astrolin, desalgin, extract of horse serum, hectin, hectargyde, iodal, bismuth nucleinate, mercury oleo-brass-

date, propesin, and resorciniform. Particulars are given as to the composition, properties, therapeutics, pharmacology, and doses. The book is a useful one for reference.]

Dobbs, W. J. *Weighing and Measuring. A Short Course of Practical Exercises in Elementary Mathematics and Physics*. $7\frac{1}{4} \times 4\frac{1}{4}$. Pp. 186. 2s. (Methuen.)

Ennis, W. D. *Linseed Oil and other Seed Oils: an Industrial Manual*. $9\frac{1}{2} \times 6\frac{1}{4}$. Pp. 330. 16s. net. (Constable.)

Greene, E. L. *Landmarks of Botanical History. A study of certain epochs in the development of the Science of Botany*. Part 1, prior to A.D. 1562. $9\frac{1}{2} \times 6\frac{1}{4}$. Pp. 329, swd. 5s. net. (Wesley.)

Short, William. *N.S.W. Pure Food Act, 1908, Notes and Comments on the Principal Drug Clauses*. Pp. 35. 2s. 6d. (Sydney: Turner & Henderson.) [The author is director of the laboratories of the Australian Drug Co., and has made a special study of the Act. His notes are excellent, and useful to houses who have business with Australia. We have received a letter from the author in which he informs us that he has sent a copy of the pamphlet to Messrs. W. Dawson & Son, Cannon Street, London, E.C., from whom copies can be obtained at the published price.]

Reviews.

Allen's Commercial Organic Analysis. A Treatise on the Properties, Modes of Assaying, and Proximate Analytical Examination of the Various Organic Chemicals and Products employed in the Arts, Manufactures, Medicine, etc., with Concise Methods for the Detection and Estimation of their Impurities, Adulterations, and Products of Decomposition. Edited by Henry Leffmann, M.A., M.D., and W. A. Davis, B.Sc., A.C.G.I. Fourth Edition. Vol. I. $9\frac{1}{2}$ by $6\frac{1}{4}$. Pp. 576. 21s. net. London: J. & A. Churchill, 7 Great Marlborough Street. 1909.

This well-known work, which is associated with the name of the late Mr. A. H. Allen, Sheffield, is being re-issued in eight volumes. The new edition is edited by Dr. Leffmann, Philadelphia, and Mr. Davis, Bromley, who have adopted the plan of organising a corps of writers, each an authority in his special branch of analytical chemistry. These experts, who will be entrusted with particular sections, are picked from the United Kingdom and the United States, as it is in these countries that the work is particularly in request. The writers of the volume under review are Mr. W. A. Davis, who is responsible for the introduction; Mr. G. C. Jones, who writes the sections on alcohols, wines, and potable spirits; Mr. Julian L. Baker, on malt and malt liquors; Mr. Emil Schlichting, on yeast; Dr. Leffmann, on neutral and acid alcoholic derivatives; Dr. Frankland Armstrong, on sugars, starch, and isomers; and Mr. R. W. Tindall, on paper and paper-making materials. The introduction deals with the preliminary examination of a substance, specific gravity, optical properties, spectrometers and spectrographs, polarimeters, thermostats, ultimate analysis, moisture, fibre and ash, and the action of solvents. The general plan followed in all the sections is to give all the trustworthy analytical methods for assaying and detecting impurities. Great care seems to have been exercised in the statements made, the lapses being, as far as we can see, very few. Exception might be taken, for instance, to the statement that "methylated chloroform is chloroform prepared from wood spirit or methylated spirit." References are given to the original papers where the analytical processes were described by their authors, and communications to the seventh International Congress of Applied Chemistry are mentioned, which shows that pains have been taken to bring the work up to date. The tests for bleaching-agents in flour may be noted as indicating that the work has been modernised to meet present-day analytical problems. Much interesting information is given throughout the book. For instance, it is not generally known that "gloy consists essentially of farina mixed with a solution of magnesium chloride"; that ale and beer were distinct beverages in the Middle Ages, the difference being that ale was bittered with oak-bark and beer with hops; and that agar is much used for thickening cheap ice-creams, especially that sold in American cities under the name "hokey-pokey." The book is well illustrated.

Practical Notes and Formulae.

Diabetes Emulsion.

SESAME-OIL emulsion is recommended for administration in diabetes. Arloing ("Bull. Générale de Thérap.") gives the following formula for preparing the emulsion, of which six tablespoonfuls are given daily :

Sesame oil	...	...	...	600 grams
Distilled water	...	...	...	300 grams
Solution of soda	...	...	...	6 c.c.

Soil Insecticide.

MAMELLE ("Comptes Rend.") states that aqueous solution of potassium cyanide injected into the soil has advantages over carbon bisulphide for destroying insects. The action is more gradual, the insects are not warned of its presence, and even in strong doses the hydrocyanic acid evolved does not affect growing plants nor stop fermentative changes going on in the soil.

Linova.

GRÜNBAAUM has isolated a new volatile fatty acid from linseed oil which possesses the antiseptic and soothing properties of the oil in a high degree. As an ointment-base 5 parts are to be mixed with 93 parts of vaseline and 1 each of ammonia and oil of lavender. This yields a yellowish-white ointment, which is called linova, capable of absorbing 15 per cent. of water and being used as a medium for various medicaments.

Sterilising Ampoules.

BARONI considers that steam at 112° C. is indispensable for effective sterilisation of ampoules. In the case of adrenalin chloride and eserine salicylate a tint sometimes develops owing to the presence of an air-space in the ampoule. This has been obviated by filling the space with a harmless gas, such as carbon dioxide, but the apparatus required is somewhat more complicated than is needed for filling ampoules in the ordinary way. Braun ("Pharm. Zeit.") states that the failure to obtain complete sterilisation in the case of suprenarin solution is due to traces of alkali in the glass of the ampoules.

Dermatological Applications.

DR. CHARCELLAY, in a thesis on the action of balsams and ointments, gives the following formulae of approved skin-applications :

Alcipine.

Anhydrous lanoline	...	...	20 parts
Benzooated almond oil	...	...	60 parts
Spermaceti	...	...	15 parts
White wax	...	...	11 parts
Distilled water	...	...	30 parts
Balsam of Peru	...	...	1 part
White gelatin	...	...	2 parts

Adiptine.

White wax	...	...	20 grams
Paraffin wax	...	...	80 grams
Almond oil	...	...	400 grams
Lanoline	...	...	250 grams
Rose-water	...	...	150 grams
Cherry-laurel water	...	...	20 grams
Tincture of benzoin	...	...	4 minimis

Preparing Soured Milk.

A USEFUL hint is given by Dr. T. D. Luke, of Peebles Hydropathic, for those who are required to prepare regular supplies of soured milk. Dr. Luke employs an incubator a wooden box, 2 ft. by 3 ft. by 2 ft., lined with asbestos and fitted with a metal tray sliding in and out and warmed by two 8-c.p. electric lamps. A thermometer is passed through a cork in the top just as in a bacteriological oven. The front of the box works on a hinge and falls down to allow of the removal of the metal tray, which holds about thirty glasses. It is also fitted with a small sliding door about 2 in. by 8 in. by means of which a supply of cooler air is regulated to prevent the temperature of the box from getting too hot. The temperature runs from 105° to 108° F., as a rule the best results in curdling being so obtained. When the souring is once started Dr. Luker's practice is to inoculate each glass of milk with a saltspoonful of the previous day's curd. This may be done for at least a fortnight, when a new strain is started.

The Week's Poisonings.

ELEVEN fatalities, including two misadventures, have been recorded during the week.

Atropine and Morphine.—At the inquiry into the death of Frederick Wm. Hulsmann (22), described as a dentist, of Gendros, the jury found a verdict of death from misadventure from an overdose of atropine. The deceased had been in the habit of using hypodermic injections, and a tube of hypodermic tablets of atropine and morphine were found in one of his coats.

Cocaine and Morphine.—Amy Deane Corke (22) poisoned herself at Deal in a dental surgery by taking some tablets of cocaine and morphine, in consequence of the discovery of her intrigue with the dentist.

Hemlock-roots.—At Kilholm, near Dumfries, two boys became ill in consequence of eating hemlock-roots, one of whom, named James Douglas (8), died in consequence. The other boy is in a critical condition.

Liniment.—The accidental death of Mary Anne Buckland (57) at Paddington was due to drinking a liniment (containing a large proportion of camphor) in mistake for her medicine.

Potassium Cyanide taken with suicidal intent caused the death of an independent lady named Juliana Florence Moss (65) at Streatham.

Prussic Acid.—A young couple named Henry G. Ryan and Mary K. M. Durrant were found dead in their apartments in Argyle Street, London, W.C. A letter left by the man showed that he had administered prussic acid to the young woman and watched her die, afterward committing suicide himself.

Rat-poison.—A farmer named Andrew Roche, of Naul, Balbriggan, informed a constable who found him in a state of collapse that he had taken a quantity of rat-poison. He died on the way to the hospital.

Spirit of Salt.—Henry Hill (70), shoemaker, died in the Derby Infirmary from the effects of a self-administered dose of spirit of salt.

Veronal.—An overdose of this hypnotic caused the accidental death of a Long Eaton lace-manufacturer named Walter Hooton. At the inquest Dr. Bloomer stated "that it is a great scandal that such a drug as veronal should be sold in unlimited quantities to anybody."

Weed-killer.—At Exeter an inquiry was held into the death of Ernest Harpham Joseph Chambers (37), traveller, who committed suicide by drinking a quantity of weed-killer. Coroner's Officer Walters said he had made inquiries at every chemist's shop in the city, but had been unable to find anyone who sold the weed-killer to the deceased, so that deceased had probably got it from some gardener. There were only two seed-merchants in the city who were licensed to sell weed-killer, and neither of these had supplied the stuff. The Coroner explained that an attempt had been made by the chemists as a body to prevent anyone other than chemists selling poisonous weed-killer, but that they did not carry their point, and people could now be supplied by seedsmen, who had a right to sell it. It was sold in large quantities, and there was nothing to prevent any gardener giving a man a pint or so. A Juror: "I suppose no signature is necessary, as in the case of ordinary poisons?"—Coroner: "I don't think so. There was a great point made by the chemists at the time that it should be treated in the same way as other poisons and only sold by them, and an entry made in a book at the time of the purchase."—Another Juror: "A casual gardener can, then, pass around poisons and have more control than an ordinary chemist?"—The Coroner: "It practically comes to that. I do not know that it would be very much better if it came from the chemists alone. If a man got a certain amount of this stuff, nothing could prevent him from giving it away. At the same time, there is no doubt that it is an exceedingly dangerous thing; but there is no necessity for anyone to point out the danger of this stuff to anyone when buying it. Of course, it is supplied in large quantities, and it is evident from that fact that the deceased did not get his bottleful from a chemist, but from a friend." The jurv's verdict was: "Suicide during temporary insanity." [The Coroner needs posting on poison-law.—ED.]

Aphorisms and Epigrams.

Written by "C. & D." Subscribers with Words selected from "C. & D. Diary" Advertisements.

Sell well, act well if you wish to succeed in business.—*Mrs. G. A. Meacham (Birmingham).*

The key to success is to advertise in THE CHEMIST AND DRUGGIST; it will pay you to use this key.—*D. C. Michie (Hawick).*

It pays chemists to study in this *Diary* particulars of good lines by reliable houses, ensuring exceptional profits to retailer.—*Ernest M. Mellor (Uttexeter).*

Winter Session.

Brief Records.

Bournemouth Pharmaceutical Association.—A meeting was held at the Gervis Hall on March 18 at 8 p.m., Mr. Francis Rose (President) in the chair. There were also present Messrs. Hardwick, Bilson, Hornby, Haynes, Pars, Williams, Worth, Reid, Botham, Lodder, Akhurst, Scampton, and Birmingham (Hon. Secretary). The subject of the evening was "Dispensing Problems," and Messrs. Hornby and Hardwick supplied most of the data.

Midland Pharmaceutical Association.—Mr. A. W. Southall presided at a meeting in the Grand Hotel, Birmingham, on March 16, when Mr. C. E. Dallow gave a lecture, illustrated by lantern-slides, on the "Costumes, Customs, and Habits of the Bretons" (as distinct from the rest of the French). Mr. Dallow had much that was interesting to say concerning the history of Ancient Breton, and wove into his lecture fascinating word-pictures of the peasantry and their life, social and religious. He was cordially thanked on the proposition of the Chairman, who took the opportunity to congratulate Mr. Jeffrey Poole on his return to Birmingham City Council, a compliment which was supplemented by Mr. Radford and acknowledged by Mr. Poole.

Nottingham Pharmaceutical Association.—A meeting was held at Calvert's Café, Nottingham, on March 16, Mr. W. Gill presiding. Impromptu speeches were the business of the evening. Twelve subjects were dealt with, ranging from the best means of preventing windows steaming in cold weather to the desirability of the abolition of the Pharmacy Acts. One of the questions asked was, "Is it desirable that pharmacists should be strongly represented on City and County Councils?" In answering this, Mr. Carr said pharmacists had very little time to devote to public work, but he thought they might be of great use on Councils, particularly as members of health committees. Mr. Gill thought it would be a good thing if they could get more pharmacists on Councils, as the advice they could give would be of great value in the public interests.

Sheffield Pharmaceutical and Chemical Society.

A MEETING of this Society was held in the rooms of the Literary and Philosophical Society on March 17, Mr. Percy Carr (President) in the chair. A lecture was given on

THE ROMANCE OF THE ELECTROLYTE

by Mr. G. Bernard Brook (Lecturer in Preparatory Metallurgy of Nonferrous Metals, The University, Sheffield). The lecture opened with a brief reference to the industry of old Sheffield plate, of which specimens of the ingot, sheet, and finished products were on view. Treating the subject historically the author reviewed the early work of Cruickshank and of Humphry Davy, whose discoveries represent the foundation principles of electrometallurgy. Both discoveries were destined to be confined to the lecture table for many years, and it was not until the invention of the dynamo some forty years later that it became possible to invest them with a commercial value. The work of Elkington, one of the pioneers of modern electroplating, and the adoption of this process by the Sheffield silversmiths, were next referred to. A very gradual progress was noted up to about 1890, when the perfected electric generators, called into being to produce electric light, found an application in the now huge industry of the production and refining of metals. The lecturer then considered in detail the manufacture of calcium carbide, aluminium, zinc, sodium, and calcium by the electrolysis of fused salts. The processes involving the use of an aqueous solution of the metallic salt was the concluding section. Bullion-refining constituted a very large industry, and the recovery of silver and gold from the raw American copper represents a sum approximating four millions sterling per annum. The refining of nickel, the recovery of tin from scrap, the refining of lead, and the process of electrogalvanising were next discussed. The refining of copper, the largest industry of all, was dealt with at some length, and the lecturer concluded by an explanation of the process by which large copper tubes are produced electrolytically by the Elmore and Cowper-Coles processes.

The President, Mr. Antcliffe, Mr. J. G. Jackson, and Mr. Bartley briefly spoke on the subject, and in reply to a vote of thanks, referring to Galvanit, said that he was assured by those who had determined the silver in this

composition by the ordinary methods that it only contained 15 grains of silver to the tin. At this rate the silver was deposited at a cost of 30s. an oz., whereas the average silver plater would do the work at 5s. an oz., provide all the labour, and take all risk of stripping.

Liverpool Chemists' Association.

A MEETING was held at the Surgery Theatre of the University Medical School, on Thursday evening, March 17, Mr. Wokes presiding over a good attendance.

THE LATE PROFESSOR CAMPBELL BROWN.

Mr. Abraham said that no better moment could be chosen for the Association to record its regret at the death of Professor Campbell Brown, once an active member of the Association and an occasional contributor to its meetings. Everybody who knew him admired him. Mr. Abraham moved that a resolution of sympathy should be sent to the deceased gentleman's widow.—Mr. Marsden, in seconding, recalled some of the early history of the University College, how it started with two rooms, in one of which this meeting was being held. He very feelingly expressed his sense of the great loss sustained in Professor Brown's death.—Dr. Symes said he had known Professor Campbell Brown for thirty-five or forty years, and he spoke of the respect and esteem in which the Professor was held. An additional reason for taking the action proposed by Mr. Abraham was that Professor Brown had been an honorary member of the Association up to his death.—After some further sympathetic comment from the President the motion was carried unanimously.

Mr. Brisby and Mr. W. Pickles were elected members of the Association. Mr. Wokes then introduced the speaker of the evening, Dr. Owen T. Williams, Lecturer on Pharmacology to the Liverpool University, who took for his subject

THE RELATION BETWEEN CHEMICAL STRUCTURE AND PHYSIOLOGICAL ACTION.

Commencing with a brief sketch of the history of medicine, Dr. Williams referred to the growing interest in rational therapeutics, and the enormous advance that had been accomplished in the last twenty-five years. He deplored the rate at which new synthetic preparations are put on the market before any thorough test of their properties has been made. Additions to the list are made almost daily, and as to the value of many of them extravagant claims are made, which on examination are found to have little or no justification. Another disadvantage of the multiplication of these new remedies is that it tends to cause many of the older drugs, whose value is beyond doubt, to fall into comparative disuse. As an example of the value of these older remedies, Dr. Williams exhibited some recently obtained and highly convincing statistics showing the benefit derived by hospital patients from a course of treatment with cod-liver oil. Passing to a description of the processes which follow the introduction of drugs into the body, he gave numerous instances to show how a slight variation in synthesis frequently produces a drug with a greatly different action. After discussing the Dujardin Beaumetz theory, ionisation, cellular variation, and the consequent selective action of some drugs, and other matters bearing on his subject, Dr. Williams came to the conclusion that as yet no satisfactory theory has been framed to enable us to predict with certainty what physiological action will follow the use of any new synthetic product, of which the formula is known. No sooner is a law made than exceptions swamp it. The clinical test is the only reliable one.

Mr. Wokes, in proposing a vote of thanks to the lecturer, inquired as to the relative values of sulphonal, trional, and veronal, and was informed that veronal is an unquestionable improvement on its two predecessors.

Dr. Symes, in seconding, said he had been especially interested to hear Dr. Williams admit that it is still necessary to get back in the end to experience.

Mr. Marsden and Mr. Abraham also spoke briefly, the latter remarking that the extravagant claims made by the manufacturers of new products are not due to any base motive. They are largely the evidence of hope and parental pride.

Dr. Williams, in replying to the vote, said he quite agreed with this remark, and added that many of these new products are extremely valuable; he instanced Novocaine. He had not wished either to belittle the important work which is being done by scientists attached to various large business firms—such men as Dr. Dale, of Messrs. Burroughs Wellcome & Co.'s laboratories.

Irish Chemists' Assistants' Association.

At a meeting of this Association, held at 12 Harcourt Street, Dublin, on March 18, Dr. J. C. McWalter, Ph.C. and barrister-at-law, delivered a lecture on

THE LAW AND THE PHARMACIST.

He said: The chemist opening a shop holds himself out as qualified to deal in poisons, and, whether really qualified or not, the law takes cognisance of the fact that he claims to be skilled in his avocation. The public are entitled to expect and demand that reputed skill, whether in the selling of turpentine or a drug, more so than if the same article were bought in an oil-store. The mere fact that the sign of skill appears over the shop-door fastens on the seller a full measure of responsibility, and this is not unreasonable. The law and the pharmacist are more closely allied in Dublin than anywhere else. The charter of the Apothecaries' Hall of Ireland, granted in 1791 at the instance of Dr. Charles Lucas, a patriot of his time, was obtained some twenty-four years earlier than that granted to the kindred body in London. Dr. Lucas delivered an address on the occasion of his return as a member of Parliament, in the course of which he mentioned that he had obtained the Apothecaries' Hall, charter. Under this it is incumbent on the apothecaries of Dublin to make up prescriptions by day or by night. In England the public do not expect to be served by night, but in Dublin it is a question whether a chemist who declines to make up a bottle at night does not bring himself within the power of the law. During the time of the Irish Parliament it was enacted that no physician should use a symbol in writing his prescriptions. [Dr. McWalter refers to the Acts of 1791 and 1815. The Apothecaries' Society of London obtained its Charter in 1616.—EDITOR C. & D.]

Contrasting the medical and pharmaceutical law, Dr. McWalter said that while a physician can practise in the three kingdoms by virtue of his diploma, an Irish pharmacist cannot act similarly in England; even an apothecary of the Hall in Dublin can only obtain recognition by reason of his medical standing. In England anyone can compound prescriptions; the offence lies in the selling. In Ireland it is an offence to compound; but the holder of the lower qualification—namely, the druggist—may act as a mixer of poisons. The chemist should not allow his prescription-book to be scrutinised by anyone. If, through carelessness, a doctor or other person were permitted to inspect the book, and the knowledge gained was used to the prejudice of the patient, the latter would have a good cause for action against the chemist. Secrecy by the chemist is as necessary as it is by the doctor; even in a court of law it should only be broken under protest and in compliance with the demand of the Bench. The nature of a malady is often recognised by the nature of the prescription; but this is not an infallible guide. A fresh leaf should be used for the entry of a prescription, so that the preceding one cannot be seen. The responsibility of the chemist is not lessened whether he sells a sealed packet or an open one; it is a popular error to suppose to the contrary. If a bottle of hair-dye injuriously affects the user, the chemist is liable until he is able to shift the responsibility on to someone else. The law is that the article he sells is genuine and carefully prepared, and in this respect the draper or other vendor is in a better position than the chemist, who is a "skilled trader." Counter recommendations are unwise. If a customer asks the assistant whether he can recommend Blank's hair-restorer and the latter answers in the affirmative, he is pinned. Constantly the public try to trap the chemist into an admission of the kind, and the very casual encomium on the merits of the article sold is liable to be used as evidence against the seller in case of accident. The candid opinion on the merits of a preparation leaves the critic liable to an action by the manufacturer. An opinion accompanied by the suggestion to try a local remedy similar in its effects to

the specific criticised cuts the ground from under the adviser. Although it may be well known to the chemist that a preparation selling for 3s. 6d. is not worth 2d., he is not at liberty to say so. The seller must not be injured in his calling: the law on this point is very far-reaching. In like manner the assistant must not disclose the fact that Mrs. So-and-So is using a hair-dye: the thoughtless remark may spell ruin to both. The sale of poisons to medical men, such as cocaine and morphine, should not be less strict than to the general public. Some doctors try to bustle the assistant or the apprentice, but the safe course is to treat all alike. The presence of a lot of poison-bottles in the room of a suicide is a bad advertisement to the chemist, who, although protected by the law with which he has complied, is at the mercy of a censorious coroner. It is always well to warn the public of the danger of carelessly handling poisons. Again, if the relatives of a person warn the chemist not to supply poison to a particular individual, and the warning be not heeded, there may be trouble in case of an inquiry. The law as regards the storage of poisons is different in Ireland from what it is in England. The English Pharmacy Act requires chemists to keep poisons in bottles readily distinguishable by touch. This does not apply to Ireland; but Irish chemists are bound by law to take reasonable care that no mistakes occur. If, through neglect to use a special bottle, a fatality happens, it may be held that reasonable care has not been taken. The spirit as well as the letter of the law must be observed by the chemist, and that it is so observed is evidenced by the fact that in Dublin there are fewer deaths from poisoning than in any city in the United Kingdom, the few accidents that occur being mostly in dispensaries and due to the improper use of beer and mineral-water bottles for the reception of mixtures. Counter-prescribing of belladonna plasters is to be avoided. If the user suffers from the effects of such a plaster worn at the suggestion of the chemist, there is a clear case against the chemist. As a safe rule, always leave to the public the onus of ordering what is wanted and give what is asked for, at the same time warning the buyer of the danger of, say, using nitric acid for the removal of warts. Dr. McWalter recommended the exercise of great care in compounding medicines, particularly in the weighing out of such things as oxalic acid, as the unused quantity found on a person who has taken some shows at once how much of the poison has been taken. Pharmacists should not be too keen on the use of a night bell. If such be used the owner is bound in law to respond to a call, and failure to answer the call, followed by the death of the patient, at once puts the chemist in the wrong and makes him liable for damages. The lecturer then referred to the Indecent Advertisements Act, the Sale of Food and Drugs Acts, the Offences against the Persons Act, the Shop Hours Act, the Merchandise Marks Act, and the law of master and servant, finishing up by advocating constant vigilance by those who would escape the attention of the administrators of the Acts of Parliament referred to.

A vote of thanks was accorded. It was announced that donations of books had been received from Messrs. Allen & Hanburys, Ltd., Messrs. Ayrton & Saunders, Messrs. Armour & Co., the Hon. Ulick Clinton de Burgh, and Mr. MacManus.

Festivities.

C. A. A. Dinner.

The annual dinner of the Chemists' Assistants' Association took place at the Café Monico, Piccadilly Circus, London, W., on March 17. Mr. F. L. K. Loxley (President) was in the chair, and there was a record attendance of about 235 persons, the arrangements reflecting great credit on the organising powers of the hon. secretary of the Dinner Committee, Mr. A. R. Arrowsmith (Apollinaris Co.). Among those present were the following:

Mr. F. W. Ashton (Idris & Co., Ltd.), Mr. A. Barber, Mr. J. F. Barrett (President of the Western Chemists' Association), Mr. R. R. Bennett, F.I.C., Mr. F. J. R. Bennett, Mr. A. Boyes (Baiss Bros. & Stevenson, Ltd.), Mr. R. H. Brittain, Dr. Macdonald Brown, Mr. J. Clark (Burroughs Wellcome & Co.), Mr. L. Cooper (C. H. Phillips Chemical Co.), Mr. F. W. Crossley-Holland, F.C.S., Mr. R. D.

Dixon (Maw, Son & Sons), Mr. H. B. Everson, Mr. Alan Francis (British Drug Houses, Ltd.), Mr. H. Grange, Professor H. G. Greenish, Mr. L. Gwatkin, Mr. A. Harries (F. Newbery & Sons, Ltd.), Mr. T. Harvey (President of the Thames Valley Pharmacists' Association), Mr. H. Hickey (Parke, Davis & Co.), Mr. T. H. W. Idris, Mr. W. P. Novelli James (W. J. Bush & Co., Ltd.), Dr. H. A. D. Jowett (Burroughs Wellcome & Co.), Mr. J. E. Lockyer, Mr. R. E. Lownsbrough, Mr. A. Makepeace, Mr. C. W. Martin (Maw, Son & Sons), Mr. S. J. Massey (Meggeson & Co., Ltd.), Mr. E. T. Neathercoat (member of the Council of the Pharmaceutical Society), Mr. J. H. Northey, Mr. G. Pearson (Burroughs Wellcome & Co.), Mr. H. F. Peck (Idris & Co., Ltd.), Mr. A. Philpot (Harker, Stagg & Morgan), Mr. E. Pickering (F. Newbery & Sons, Ltd.), Mr. C. S. Presant (Sangers), Mr. A. J. Rickford, Mr. R. A. Robinson, J.P., Mr. J. W. Royle (Ingram & Royle, Ltd.), Mr. A. Shillecock, Mr. A. Solomon, Mr. T. Morley Taylor, Mr. T. W. Theakston, Mr. F. W. Truman (Chairman of the London Chemists' Association), Mr. Thos. Tyrer, F.I.C., Mr. E. A. Umney (Wright, Layman & Umney, Ltd.), Mr. E. Warrick (Warrick Bros., Ltd.), Mr. J. H. Wigginton, F.C.S., Mr. T. R. Williams (Wright, Layman & Umney, Ltd.), Mr. G. S. V. Wills, Mr. R. Winfrey, M.P., Mr. W. J. U. Woolcock, Mr. Chesham Wright, and representatives of Camwal, Ltd., Chesebrough Manufacturing Co., T. Christy & Co., Crown Perfumery Co., Duncan, Flockhart & Co., Evans Sons Lescher & Webb, Ltd., G. B. Kent & Son, Oppenheimer, Sons & Co., Orridge & Co., A. & F. Pears, Ltd., Savory & Moore, Ltd., and Willows, Francis, Butler & Thompson, Ltd.

After dinner the loyal toasts were taken, and then the President proposed the toast of "The Pharmaceutical Society," which, he said, is near and dear to us and protects and safeguards our interests. Mr. E. T. Neathercoat replied, and said that the Society appreciates constructive criticism. He was a great believer in the influence of local associations, and would like to see the interest of these associations assume a more practical character and recognised position in the organisation work of the Society. A strong position would be of assistance to the Society in the fight that is before it. Mr. Neathercoat then reviewed the history of the Mercer case and the Poisons and Pharmacy Act, adding that if there is a chance of securing any home or domestic legislation in the present session the Society will do what it can to restrict the use of the place-name "pharmacy" to qualified chemists. An appeal was also made on behalf of the Benevolent Fund. Mr. W. J. U. Woolcock next proposed the toast of "The Chemists' Assistants' Association," to which Mr. F. W. Crossley-Holland replied. The Association has been in existence for thirty-three years, which is a proof that it has carried on some useful work. The evolution of pharmacy makes it increasingly necessary that assistants should strive to keep their knowledge up to date, so as to escape empirical methods and approach nearer the ideal physiological conditions demanded by modern medical men. Mr. A. R. Arrowsmith proposed the toast of "The Visitors," to which Mr. R. Winfrey, M.P., replied, recalling his early connection with the Association, of which he was President in 1884. He regretted that the Poisons and Pharmacy Act had not been an unqualified success. His advice to chemists was to trust more to their right hands and heads than to Acts of Parliament. He did not advise the Society to engage in the promotion of further legislation at present, but to endeavour to make the best of the Acts which they have. A good musical programme occupied the intervals between the speeches.

Various Functions.

Many of the members of the Three Towns and District Association of Pharmacists met for supper at Cornish's Restaurant, Union Street, Plymouth, on Thursday, March 17, to bid farewell to Mr. H. H. Cannon, who has acted as Secretary for the past three years, and who is now leaving Plymouth. Mr. W. Condy U'Ren presided, and after supper he spoke of the work of a very arduous character which Mr. Cannon had carried out with such conspicuous success, and thanked him on behalf of the Association and wished him future prosperity. Mr. Robert Roper spoke of Mr. Cannon's capacity and the tact he had always shown. Messrs. H. D. Davey, J. Barge, F. A. Spear, F. A. Goodwin, and others endorsed what had been said. The President then presented Mr. Cannon

with a handsome clock, suitably inscribed, as a testimony of the esteem and gratitude of the members of the Association. Mr. Cannon, in thanking the members, referred to the help accorded him at all times during his term of office by the officers and committee.

A smoking concert, arranged by the Irish Chemists' Assistants' Association, was held in the Central Hotel, Dublin, on March 17. Mr. Thomas White (Harker, Stagg & Morgan, Ltd.) was in the chair, and among the 150 persons present were the Hon. Ulick Clinton de Burgh, M.D., and Messrs. Ridge, Harmel (Hon. Secretary), Higgins, Morrow, and Young. There was a good programme of vocal and instrumental music, which finished with the singing of "Auld Lang Syne."

The Sheffield branch of the National Union of Assistant Pharmacists held their first whist-drive at the Imperial Hall there on Thursday, March 17, Mr. E. G. Douthwaite acting as M.C. The company numbered seventy-four, and the prize-winners were :

Ladies: (1) Mrs. Rose, (2) Mrs. Douthwaite, (3) Mrs. Whitaker. Hidden number, Mrs. Burns.

Gentlemen: (1) Mr. Littlehales, (2) Mr. Green, (3) Mr. Naylor. Hidden number, Mr. Bellamy.

Mr. A. A. Auger (Hon. Secretary) presented the prizes.

The Liverpool branch of the National Union of Assistant Pharmacists held a Bohemian concert at the Bear's Paw, Lord Street, on March 16. Mr. T. Ashworth presided over a large attendance. Several of the city's favourite singers contributed items. The contributors to the evening's excellent entertainment were Madame Hetty Alexander, Mr. Percy Stone, Mr. Tom Derbyshire, Mr. Sid Harford, Mr. W. E. Backhouse, Miss N. Howat, Miss May Harrop, Mr. J. Fairburn, Mr. J. T. Barnes and Messrs. Douglas Milton, Riley, Robinson and Quirk. The Chairman thanked the artistes for their services, and in reviewing the session congratulated the Hon. Secretary (Mr. Jas. J. B. Waldron) on his labours and achievements under difficult circumstances. He desisted their support in the coming elections for him, and in the name of the Union thanked him for his unselfish work. Mr. T. F. Percival thanked the Chairman for so ably discharging his duties, and Mr. Waldron briefly responded.

Coming Events.

This Section of the "C. & D." is reserved for advance notices of meetings or other events which are sent to the Editor by Wednesday of the week before the meetings, etc., occur.

Wednesday, March 30.

Public Pharmacists' and Dispensers' Association, St. Bride Institute, Ludgate Circus, London, E.C., at 8 p.m. Microscopical exhibition organised by Mr. F. Noad Clark.

Cardiff Pharmaceutical Association, Angel Hotel, at 3 p.m. General meeting.

Thursday, March 31.

Chemists' Assistants' Association, 73 Newman Street, London, W., at 9 p.m. Musical and social evening.

Cheltenham Chemists' Association, 5 Promenade, at 9 p.m. General meeting.

Friday, April 1.

Brighton Association of Pharmacy, Old Ship Assembly Rooms. Whist-drive and dance Tickets (5s. each) from Mr. C. E. Robinson, Hon. Secretary, 4 Victoria Terrace, Hove.

THE ANNUAL DINNER of the Birkenhead and Wirral Association of Pharmacists will take place at the Woodside Hotel, Birkenhead, on April 7.

THE LONDON CHEMISTS' ASSOCIATION are holding a dinner, dance, and whist-drive at the Holborn Restaurant on April 19. Tickets (6s. 6d. each) can be obtained from Mr. J. Wellesley Douglas, 19 Kennington Terrace, Kennington Park, S.E. Mr. T. H. W. Idris will preside.

THE ANNUAL SMOKING-CONCERT in connection with the Public Pharmacists' and Dispensers' Association will be held at Stone's Restaurant, Ludgate Circus, London, E.C., on April 6. Tickets (1s. each) may be had from the Hon. Secretary (Mr. S. H. Leadbeater), 21 North Cray Road, Bexley.

Port of London Rates.

DURING the sitting of the Port of London Inquiry on March 17 in the Grand Committee Room, Westminster Hall, Lord St. Aldwyn presiding, Mr. Edwin Clements produced the list of rates which had been agreed on between the Port Authority and Messrs. Brunner, Mond & Co. and the United Alkali Co., and said with regard to these agreed rates that these companies reserved their right—they would not appear upon any rates when the Provisional Order came before Parliament, but they reserved liberty to oppose the Order on any question of principle. The tables were handed in, and are as follows :

Article.	New Maximum Rate.
Salt (common)	2d. per ton.
Hydrochloric acid	3d. "
Calcium chloride or muriate of lime	3d. "
Saltcake (ground and packed)	3d. "
Soda crystals	3d. "
Sulphuric acid	4d. "
Staves	3d. "
Bleaching-powder	3d. "
Soda ash	4d. "
Soda bicarbonate	5d. "
Soda sesquicarbonate	5d. "
Zinc ore	4d. "
Soda caustic	8d. "
Sulphate of ammonia	9d. "
Gunny bags and all jute bags	1s. "
Ammonium carbonate	2s. "
Ammonium chloride	2s. "
Potash, chlorate of	2s. "
Soda, chlorate of	2s. "
Chemicals not otherwise rated	—

Price of article	Other articles	Maximum rate as per schedule Provisional Order	Proposed rate on basis of other rates agreed
47. 15s. to 7l. 5s....	Sulphur as brimstone	Per ton 4d.	4d.
5l. to 6l. 10s. ...	Sulphide of sodium	6d.	6d.
5l. 10s.	Hyposulphite of soda	6d.	6d.
3l. 15s. to 5l. 10s.	Silicate of soda	6d.	4d.
2l. 5s.	Pearl hardening	6d.	2d.
12l. 2s. 6d.	Arsenic	1s.	1s.
2l. 10s.	Satinate, added to schedule	No rate	2d.

Subsequently Mr. Clements called Mr. Harry Musgrave, secretary to Messrs. Spencer, Chapman & Messel, Ltd., chemical-manufacturers, Silvertown, who submitted a table which showed for a year the quantities and values of the goods in which his company are mostly interested, and the charge which would be levied upon those goods if the proposed scale were authorised. The goods included pyrites (30,000 tons per year, value at 17s. 6d. per ton, 26,250*l.*). The total amount of dues that would be charged on that sum would be 1,748*l.* per annum. They had to return out of 30,000 tons of pyrites 21,000 tons of cinders (purple ore), which they had to get rid of. Warehousing and loading cost probably 1s. 6d. a ton. Sulphuric acid manufactured from the pyrites is exported to Mexico for the purpose of oil-refining, and has to be sold at a very low price to meet competition, and also to prevent the consumer making his own sulphuric acid in Mexico. If any extra charge was put on that acid it would probably shut out the whole of that export to Mexico. The ships that take out the acid come back to London with refined petroleum. Witness also explained how the port rates on sulphate of copper and on the raw material are cumulative, and stated that at present there is a loss on every ton of sulphate of copper shipped from London to Continental ports, and the proposed rates would shut out every ton of sulphate of copper going from London (about 6,000 tons). Replying to further questions, witness suggested 1d. for pyrites. For salt

they were asked to pay 3d. a ton, and for saltcake 4d. a ton, which was impossible as they had to sell at 25s. a ton, and sometimes as low as 15s. They proposed a rate on saltcake of 1d., and 6d. for sulphate of copper. In cross-examination by Mr. H. Lloyd for the Port Authority, the witness said he did not think that a maximum of 1s. was good enough for nitric acid. For sulphuric acid 4d. might content them. For copper sulphate 1s. 3d. was too high.

The Chairman : I don't think the rate on copper ought to be reduced.

Mr. Lloyd : Copper was one of our difficulties in effecting a settlement about this.

The Chairman subsequently asked Mr. Clements if he had anything more to say with regard to sulphate of copper.

Mr. Clements replied that he had finished what he had to say upon that point.

The Chairman : Is there anything more with regard to any of these articles, or is the whole of the chemical case concluded ?

Mr. Clements : So far as I am concerned it is concluded ; I don't know if there are any other objectors interested.

The Chairman : Assuming that to be so, I think pyrites can be put at 1½d. maximum ; purple ore at ½d. ; salt, 2d. ; saltcake as proposed, 3d. and 2d. for the special article ; sulphate of copper should be lower, 1s. ; sulphuric acid, 4d. Nitric acid also has been settled, I think, at 1s.

The inquiry was adjourned.

When the inquiry was resumed on Monday the draft amended Provisional Order was considered, and various amendments proposed by the Port Authority were submitted for insertion in a second schedule substituted for the original second schedule, the latter having stood as follows :

"The maximum port rates on goods imported or exported coastwise into or out of the Port of London shall be one-half of the maximum rates specified in the first schedule."

The new clause brought up in substitution was as follows :

"The port rates actually charged on goods imported or exported coastwise (including therein goods imported or exported from or to the Isle of Man or the islands of Guernsey, Jersey, Alderney, or Sark) into or out of the Port of London shall not exceed one-half of the port rates for the time being actually charged on similar goods imported or exported from or to parts beyond the seas."

A proposed amendment by the Port Authority of the second schedule relating to export rates was as follows :

"The port rates on goods exported to parts beyond the seas shall not exceed one-half of the maximum rates for the time being charged on similar goods imported from parts beyond the seas."

Another amendment as to import rates on raw material was submitted as follows :

"In fixing from time to time the port rates to be levied under this Order, and the exemptions and rebates allowed by the Port Authority in respect thereof, the Port Authority shall endeavour, so far as they consider practicable, to adjust the same so as to ensure that the import rates on the materials used in the manufacture of any article shall not be more than the import rates on a like manufactured article imported from parts beyond the seas."

A further amendment relating to the Medway and Swale traffic was brought up :

"Nothing in this Order contained shall be construed as imposing any port rates on any goods carried in any vessel by reason only that the vessel passes through any part of the Port of London on a voyage between places situate on the River Medway or the River Swale and not within the Port of London, and any other places not within that port."

A number of other amendments were brought up and discussed. The public inquiry then terminated, and Viscount St. Aldwyn will report to the Board of Trade in due course.

THE SOAP ENEMA.—Cutaneous eruptions sometimes follow the use of a soap enema, and it is reported that this is due to rosin in common yellow soap. No evil results follow when an enema of Castile soap is used.

A PHARMACIST AVIATOR.—A pharmacist of Herzogenburg, in Southern Austria, has invented a flying machine of the Bleriot type, driven by a 50-h.p. motor. He is said to have made successful flights with his machine.

Trade Report and Market Review.

The prices given in this section are those obtained by importers or manufacturers for bulk quantities or original packages. To these prices various charges have to be added, whereby values are in many instances greatly augmented before wholesale dealers stock the goods. Qualities of chemicals, drugs, oils, and many other commodities vary greatly, and higher prices than those here quoted are obtained for selected qualities of natural products even in bulk quantities. Retail buyers cannot, therefore, for these and other reasons, expect to purchase at these prices.

42 Cannon Street, London, E.C., March 23.

ALTHOUGH few changes have been announced in the drug and chemical markets, there is a steady undertone, and the fact that a drug auction was held to-day has helped to swell the volume of business. Cod-liver oil shows a further advance in Norway, but buyers here are by no means eager to follow it. Ipecacuanha remains firm for Rio, but Cartagena has slightly eased. Acetylenealicyclic acid has a firmer tendency, makers showing more disposition to work in harmony. Medicinal carbolic acid has been in improved demand at unaltered rates. Refined camphor continues quiet. Morphine is in better inquiry, there being little second-hand available below official currencies. Castor and lemon oils are firm, but orange is a shade easier. Insect-flowers show a declining tendency at Trieste. Quinine is inactive, opium remaining steady. Indiarubber met with an active demand at auction, prices establishing fresh records. The principal changes have been as under :

Higher	Firmer	Easier
Cardamoms	Castor oil	Bergamot oil
Cod-liver oil	Lemon oil	Gamboge
Indiarubber	Senna (Tinn.)	Insect-flowers

Jalap	
Orange oil	

Cablegrams.

NEW YORK, March 23.—Business in drugs is improving. Opium remains quiet at \$5.45 per lb. for druggists' by single cases. Cascara sagrada is unchanged. Peppermint-oil in tins is dull at \$2 per lb. nominally. Sassafras-oil is firm at 65c. Jalap remains easy at 18c. Hydrastis (golden seal) is steady at \$2 and Cartagena ipecacuanha is firmly held at \$1.50 per lb.

BERGEN, March 22.—The total catch of cod for the whole of Norway now amounts to 23,000,000 against 21,000,000 at the corresponding date of last year, and the output of steam-refined oil is 17,800 barrels, against 21,400 barrels (or 3,600 barrels less) at the same date of 1909. The results at Lofoten have been small this week, and to-day the fishing has been hindered by storms. The Finmarken prospects are good, and the market for finest non-freezing Lofoten medicinal oil closes firm at 96s. 6d. per barrel c.i.f. terms.

AMSTERDAM, March 23.—At the cinchona auctions held to-day 9,773 packages were offered, of which 8,862 packages sold at an average unit of 3.14c. per half-kilo, against 3.14c. paid at the February auction. The following were the approximate purchases of quinine by the factories : (1) The English and American factories, 11,626 kilos; (2) the Brunswick factory, 5,522 kilos; (3) the Mannheim factory, 7,380 kilos; (4) the Amsterdam factory, 2,553 kilos; (5) the Frankfort and Stuttgart factories, 4,472 kilos; (6) the Maarsen factory, 4,879 kilos; and various buyers, 8,110 kilos. The lowest price paid for manufacturing bark was 5c., and the highest 32½c., while for druggists' bark from 4½c. to 36½c. per half-kilo was paid. The 345 packages coca leaves sold at from 39½c. to 68½c. per half-kilo.

Heavy Chemicals.

The heavy chemical market continues to maintain a steady tone, and there is a fair all-round demand for both main and miscellaneous products. Export business is slightly fuller, and from the inquiries on the market a further increase in this direction seems probable.

SULPHATE OF AMMONIA both for prompt and early delivery continues on the firm side. Present nearest figures are: Beckton prompt 12l. 10s., Beckton terms 12l. 2s. 6d. to 12l. 5s., London 12l. 2s. 6d. to 12l. 3s. 9d., Leith 12l. 8s. 9d. to 12l. 10s., Hull 12l. 3s. 9d. to 12l. 5s., and Liverpool 12l. 6s. 3d. to 12l. 7s. 6d.

ALKALI PRODUCE.—In this branch there is a normal demand and fluctuations in value are only nominal. Bleaching powder, 4l. 2s. 6d. to 4l. 7s. 6d. per ton for softwood casks, free on rails, and 4l. 10s. to 4l. 15s. f.o.b. Caustic soda, 76 to 77 per cent., 11l. to 11l. 2s. 6d.; 70 per cent., 10l. 5s. to 10l. 7s. 6d.; and 60 per cent., 9l. 5s. to 9l. 7s. 6d. per ton. Ammonia alkali, 58 per cent., 4l. to 4l. 5s. per ton, free on rails in bags. Soda crystals, 52s. 6d. to 57s. 6d. per ton in bags, free on rails. F.O.B. Tyne, 57s. 6d. to 62s. 6d. per ton, and 57s. 6d. to 62s. 6d. per ton f.o.b. Liverpool. Bicarbonate of soda, 5l. to 6l. per ton f.o.b. Liverpool, according to packages. Saltcake steady at late figure of 42s. 6d. per ton. Chlorates of potash and soda, 3½d. to 3¾d. per lb. according to quantity, etc. Yellow prussiates of potash and soda stand respectively at 4½d. to 4¾d. and 3d. to 3½d. Hyposulphite of soda, ordinary crystals in casks, 5l. to 5l. 10s. per ton, and in 1-cwt. kegs 5l. 15s. to 7l. 15s. per ton, according to quantity and quality. Silicates of soda, 140° Tw., 4l. 7s. 6d. to 4l. 17s. 6d.; 100° Tw., 3l. 17s. 6d. to 4l. 7s. 6d.; and 75° Tw., 3l. 10s. to 4l. per ton, according to quantity, quality, and destination.

Manchester Chemical-market.

March 22.

The market is closing for the month with a more cheerful feeling in most departments, and the outlook forward is good. This is practically the last market of the month, as the Exchange is closing from Thursday evening until Tuesday morning, owing to the Easter holidays. In heavy chemicals the tendency has been rather against buyers, especially on export account, but there are few changes to note. The conditions of the textile industries in Lancashire still militate against a heavy demand in this particular class of goods, but all things considered, it is fairly good. Sulphate of copper has had a downward tendency generally, though it closes fairly good at about 20l. to 20l. 10s. per ton, best brands, delivered Manchester. As this is a busy time of the year for this article the slack demand is disappointing, both to makers and merchants. White powdered arsenic has been on the easy side, but forward there is a better feeling. General quotations are 12l. 7s. 6d. to 12l. 15s. per ton, delivered Manchester. Glauber salts is quoted 42s. 6d., Epsom salts 50s. per ton in bags, 65s. to 80s. casks and barrels (export), according to quality. Prussiate of soda is 3½d. for English; bichromate of soda 3d. per lb., and acetate of soda 15l. 10s. per ton. Glycerin has been rather quiet. Brown acetate of lime very firm at 7l. 7s. 6d. to 7l. 12s. 6d. per ton for English. Coal-tar products have been firm throughout the month, and prices have had an upward tendency generally. Sulphate of ammonia closed at 12l. 1s. 3d. to 12l. 2s. 6d. delivered Manchester, showing an advance of about 6s. 3d. on the month. Benzols are in sellers' favour, but carbolic acid has been rather quiet, with crude fractionally lower. Solvent naphtha in good inquiry for delivery over next year.

American Drug-market.

New York, March 15.

A rather more active demand for drugs was experienced in the New York market during the interval, but the turnover was made up chiefly of jobbing sales. Price changes include higher values for ipecacuanha and aloes, lower for jalap and menthol.

ALOES.—Curaçao in boxes is in active demand, and with limited supplies on spot prices advanced 3c. to 8c., at which heavy sales are reported. Stocks are well controlled, and at the close 8c. was regarded as the minimum quotation. Cape is also firm at 8½c.

ASAFETIDA continues firm at 65c. under the conditions previously noted.

CANADA BALSAM is in quiet demand, but fairly steady at the recent decline to \$5 per gallon. Oregon is worth \$1 more or less, according to the origin and quality of the product.

CASCARA SAGRADA is in moderately active demand at the firm prices of 7½c. to 8c. Advices from the coast are to the effect that most of the available supplies are controlled by a few dealers, and that higher prices are in prospect. Local dealers, however, show less confidence in the situation, and are disinclined to operate in a large way in view of the approaching season.

COPAIBA is following a routine course, with prices for Central and South American fairly steady at 42½c. to 45c.

HYDRASTIS is in quiet demand, but owing to limited supplies in both spot and primary markets values are well sustained at \$2 to \$2.10.

JALAP continues in downward tendency due to a falling-off in demand and freer supplies. For recent arrivals 18c. was quoted; but this may be shaded on a firm order.

IPECAC.—The market has been in a rather excited condition owing to active speculative demand for the London and Continental markets. With limited supplies available, prices rapidly advanced 40c., establishing at the close an inside figure of \$1.50 for Cartagena. Rio is out of the market, and for arrival \$2.75 is named.

OPIUM continues in quiet demand at \$5.45, but the position is somewhat firmer in sympathy with the primary situation.

PEPPERMINT OIL is the turn easier on spot in so far that the lower figure of \$1.95 is openly quoted. Divergent opinions are expressed on the tendency of prices in country markets. Local dealers report easier terms at primary sources, but are limiting their purchases to actual requirements.

WINTERGREEN.—Birch oil is firmer at \$1.50. True leaf is very scarce, and \$4.25 is asked.

London Markets.

ACID, ACETYL-SALICYLIC.—The prices show a tendency to improvement inasmuch as the makers evince a disposition to work together for the purpose of bringing values to a more remunerative level.

ACID, CARBOLIC.—The fact that the German market has improved, as announced last week, has led to more inquiry on this market for medicinal quality at previous prices. The value for 40° C. detached crystals (B.P.) is 4½d. per lb. in 2½-cwt drums, 39° to 40° C. ice-crystals 3½d. and 34° to 35° C. 3½d. per lb.

BERRY ROOT-BARK.—New crop for April-May shipment is quoted at 43s. and stem-bark at 24s. 6d. per cwt. c. and f. London.

CAMPHOR (REFINED).—Quiet, with sellers of Japanese. 2½-lb. slabs at 1s. 6½d. per lb. c.i.f. for April-May shipment, and on the spot 1s. 6d. is quoted. In the drug auction five cases of Japanese refined ½ oz. tablets sold without reserve at from 1s. 7d. to 1s. 7½d. per lb. net, no discount.

CINCHONA.—The shipments from Java to Europe during the first half of March amounted to 349,000 Amst. lb., against 171,000 Amst. lb. for the corresponding period of 1909.

CLOVES.—Small sales have been made privately on the spot at from 5½d. to 5¾d. per lb. Both the arrival and delivery markets have been dull; for arrival March-May has been sold at 5½d. c.i.f. d/w, closing sellers, and for June-August delivery 5½d. has been paid, closing 5½d. value.

COPAIBA.—Privately unfiltered Maranham is quoted in barrels at 1s. 11d. per lb. on the spot.

GAMBIER is slow at from 29s. to 30s. for block, and at 38s. spot for cubes.

GINGER.—The sales in Liverpool include 150 tons for March-April shipment at from 37s. 6d. to 38s. ex-quay in transit.

GLYCEROPHOSPHATES.—The prices of the chief salts in 28-lb. lots are as follows: Lime 4s. 6d., granular 5s. 1d., potash (50 per cent.) 3s. 11d., (75 per cent.) 6s. 6d., (100 per cent.) 8s.; magnesium (50 per cent.) 4s. 10d., crystals 9s. 11d., manganese, 9s. 11d.; soda (50 per cent.) 3s. 5d., (75 per cent.) 6s. per lb. net cash.

HENBANE-LEAVES.—Foreign are offered at 48s. 6d. per cwt. c. and f.

HYDRASTIS is quoted 8s. 9d. per lb. net on the spot.

INDIARUBBER.—At the auction, which commenced on Tuesday and concluded to-day (Wednesday), about 165

tons Malaya and 25 tons Ceylon were offered and sold at a general advance of from 4d. to 6d. per lb. on the previous auction. The prices realised established fresh records, up to 11s. 0½d. per lb. being paid for smoked sheet. Privately the value of fine hard Para on the spot and for March-April delivery is 10s. 4½d., the value of Cauché ball being 6s. 10½d.

INSECT-FLOWERS.—According to advices from primary sources the market still shows a declining tendency, with few sales reported. Consumers are holding off the market in expectation of lower values later, and with that idea in view a prominent firm of Trieste exporters recommend their friends to purchase current wants only during the next three months. Finest half-closed Dalmatian flowers are offered at 152s. 6d., fair half-closed at 112s. 6d., and open at 97s. 6d. per cwt. c. and f. London or Hull, but these figures might be shaded on a firm offer. Closed flowers are scarce, and prices are maintained at 167s. 6d. c. and f. for finest.

MORPHINE.—There has been an export inquiry for 2,000 oz., but so far business has not materialised. The price for 1,000 oz. lots of hydrochlor. powder is 7s. 6d. per oz.

NUX VOMICA.—The recent sales of 250 bags Madras reported last week were made at from 6s. 9d. to 7s. per cwt. (not 8s. as stated), and since then 5s. 9d. c.i.f. has been paid for Bengal description. At auction 147 bags of fair Madras were held at 7s. per cwt.

OIL, BERGAMOT.—The lack of demand from abroad (states a Palermo advice), now that local sales in blank have been covered, causes a general stagnancy, which, notwithstanding the smallness of the crop, has a depressing effect on holders. Needy growers were compelled to sell at lower figures: for shipment quotations vary from 16s. to 18s. per lb. c.i.f. as to seller.

OIL, CASTOR, is firmer by 10s. per ton for Hull make, first pressing of which is offered for April-June delivery at 28s. 10s. per ton, delivered free on wharf London. Belgium is also firmer at 28s. for firsts for prompt, ex wharf London.

OIL, CHAULMOOGRA, is quoted at from 1s. 8d. to 1s. 10d. per lb. spot. In the drug auction nine cases were limited at 1s. 3d. per lb.

OIL, COD-LIVER, is nominally dearer, several agents who offer the finest quality of non-freezing oil having now been instructed to quote 100s. per barrel, c.i.f. terms; but at the moment buyers are not keen, and very little business is passing. In one quarter 93s. c.i.f. is quoted for new and 90s. c.i.f. for old oil.

A London advice of March 17 states that although the number of fish caught is, according to the latest figures, even larger than last season, the yield of oil is materially less, and the reports which we received from Norway state that the market continues very firm and that higher prices are likely to rule before long. Even at present quotations it does not pay to produce oil in the Lofoten district on the basis of the prices which are actually being paid for livers. In expectation of more remunerative sales being possible later on, considerable quantities, it is stated, are being warehoused.

An advice dated March 21 gives the following figures relating to the catch and output to March 19:

—	Fish	Livers for Raw Oil (hect.)	Yield of Medicinal C.L.O. (hect.)
Lofoten, 1910	10,000,000	1,335	9,926
" 1909	8,000,000	1,425	10,100
Whole country, 1910	22,700,000	6,325	20,442
" " 1909	21,300,000	6,967	24,799

OIL, LEMON, continues firm, according to advices from primary sources, as the moderate output up to the present and the general shortage in the lemon crop, together with the unfavourable conditions in the citrate-of-lime industry, which is handicapping the manufacture of lemon oil, is causing speculative interest. Buyers abroad have not participated in this movement, and maintain their waiting attitude, although for what orders have come to hand full prices were readily paid; for shipment, from 3s. 6d. to 3s. 10d. per lb. c.i.f. is quoted.

OIL, LEMONGRASS.—Good Cochin is quoted 3d. to 3½d. per oz. spot.

OIL, ORANGE, is a shade weaker, sweet offering at from 6s. to 6s. 3d. per lb., c.i.f. terms.

OPIUM.—There is practically nothing doing on the spot, the value of Turkey druggist's being from 15s. 6d. to 15s. 9d. per lb. spot. Persian is firm on the spot at 18s. to 18s. 6d., and to arrive nothing is offered, but a bid of 17s. 6d. for the usual 10 per cent. contract might lead to business. About 80 cases Persian have arrived this week, and some 200 more are expected shortly, the bulk of which have been sold for arrival.

A Smyrna correspondent writes on March 12 that the opium sales amount to 12 cases at previous rates for England. The market closes firmly, and holders are in no hurry to liquidate stocks. It is hoped that prices will be maintained at about the present quotations until the new crops. In view of the sudden fall in temperature, speculators had been hoping for reports of damage to the crops, but these have not materialised. The arrivals amount to 1,918 cases, against 2,040 cases last year at the same date. Another correspondent gives the following details of the above sales: Eight cases new extra Karahissar t.q. at the equivalent of 14s. 1d.; four cases old extra ditto at 13s. 7d., and six cases current at from 11s. 10d. to 12s. 3d. per lb. c.i.f.

PEPPER (BLACK) rather firmer to arrive, the sales including June-August shipment at 3½d. c.i.f. d/w; on the spot fair Singapore is quoted 4½d. per lb.

PEPPER (WHITE).—Privately fair Singapore is quoted on the spot at 6½d. per lb., and April-June shipment at 6½d. c.i.f. d/w.

QUININE.—Demand is quite inactive so far as the "Lane" is concerned, with second-hand sellers of German sulphate in bulk at 7d., Amsterdam at 6½d. to 7d., and Java at 6½d.

SHELLAC.—Quiet. Spot business continues limited on the basis of 68s. for TN Orange, and for arrival 68s. c.i.f. is quoted. Good and fine Orange marks are quoted at from 75s. to 87s. 6d. AC Garnet is 65s. 6d. c.i.f. and 65s to 67s. spot; GAL, 56s. 6d. c.i.f. and about 57s. 6d. spot. Futures are quietly steady, the small sales including March delivery at 63s. 6d.

Soy.—Fine thick (Wochan) sells at 1s. 5d. per gal., duty paid, and other qualities in proportion.

WAX, JAPAN, is steady at 40s. to 41s. for good squares on the spot.

WOOD OIL.—Hankow is in small supply on the spot at 32s. 6d. per cwt., and for arrival February-April shipment has been sold at 28s. 6d.

London Drug-auctions.

At the auctions of first-hand drugs the tone was poor throughout, only a small proportion of the goods offered finding buyers, price alterations being few. Cape aloes brought fully previous rates, Socotrine being neglected. Balsam tolu and buchu were steady. Sumatra benzoin is slow. Cardamoms realised an advance of 1d. to 2d. Calumba continues scarce. Gamboge is tending easier, and honey was not inquired for. Cartagena ipecacuanha is not quite so firm, Matto Grosso remaining very scarce. Japanese peppermint and cassia oils were forced off at a decline on private prices. Rhubarb was entirely neglected. Native Jamaica sarsaparilla is slow, and common Tinnevelly senna brought an advance of about ½d. over previous auction rates. Beeswax quiet, Australian being firmer inclined. The following table shows the quantity of goods offered and sold:

	Offered	Sold		Offered	Sold
Aloes—			Cardamoms	165	92
Cape	50	50	Cascara sagrada	120	0
Socotrine (kegs)	25	0	Cascarilla	4	0
Zanzibar (es.)	1	0	Cashew-nuts	64	10
Ambergris	5	0	Cinchona	51	0
Ammoniacum	19	0	Cinnamon-bark	16	0
Anise (Russ.)	20	20	Coea-leaves	10	8
Balsams—			Colocynth pulp	6	0
Tolu	11	1	Dragon's-blood	9	1
Benzoin—			Galbanum	1	0
Palembang	10	0	Gamboge	5	2
Sumatra	84	10	Gentian	20	0
Buchu	35	18	Honey—		
Calumba	20	20	Calif.	50	0
Camphor—			Jamaica	37	0
Jap. ref. (4 oz.)	5	5	West Indian	7	0
Cannabis indica...	1	0			

	Offered	Sold		Offered	Sold
Ipecacuanha—			Rhubarb (China)...	27	0
Cartagena	15	2	Sarsaparilla—		
Minas	2	0	Grey Jam.	2	2
Kola	15	0	Lima	15	0
Lime-juice	34	0	Mexican	10	3
Madagascar beans	56	0	Native	12	4
Mastich	3	0	Senna and pods—		
Myrrh	6	0	Alex.	116	2
Nux vomica	147	0	Tinnevelly	175	124
Oil—			Tamarinds	16	0
cassia	24	24	Tragacanth	3	3
chaulmoogra	9	0	Turnerrie and pdr.	10	10
cinnamom	25	12	Wax (bees')—		
eucalyptus	31	0	Australian	4	4
lime	4	0	East Indian	26	0
peppermint	35	35	Italian	15	15
Opium	1	0	Jamaica	9	0
Orange-peel	37	0	Madagascar	170	0
Orchella-weed	291	291	Mozambique	32	0
Orris (Mog.)	16	0	Spanish	18	0
Otto of rose (bott.)	10	0	West Indian	3	0
Rhatany	2	0	Zanzibar	42	0

ALOES.—Cape sold at fully steady rates, fifty cases being offered and sold, including good bright hard firsts, 32s. 6d. to 33s.; fair to good seconds, 31s. to 32s.; ordinary dull and slightly drossy, 30s. to 30s. 6d.; ullaged, 30s.; half liver half bright mixed with dirt, 28s. 6d. per cwt. A single case of Zanzibar of very good hepatic quality in pieces in leaves was bought in at 95s. per cwt. Stiff pasty Socotrine in kegs was held at 85s. Fifty kegs have arrived from Bombay per *Caledonia*. Privately the New York market is extremely bare of Curaçao on recent good buying, and no offers are being made for shipment at the moment. The exports from Cape Colony during January 1910 amounted to 68,676 lb.

ANISEED.—Twenty bags fair Russian sold without reserve at 23s. 6d.

BALSAM TOLU.—A single case of good hard slightly drossy sold at 10d., and for five cases ditto the buying-in price was 1s.; for another six cases drossy to slightly drossy a bid of 10½d. was refused, the owner's idea being 11d. per lb. Privately 11d. per lb. is quoted.

BENZOIN.—Quiet; the only public sale consisted of ten cases ordinary Sumatra seconds with false-packed ends, which realised 5l. 5s. per cwt.; fair Palembang in tins and cases was held at 50s. per cwt.

BUCHU steady. The largest offerings consisted of 22 bales, of which about half sold, including good green round at 1s. 9d., fair greenish ditto 1s. 7d. to 1s. 8d., and either yellowish or stalky 1s. 6d. per lb. A further 11 bales offered, of which 6 bales oval had been sold privately, and the remainder were bought in. Two bales of bronzy ovals from another catalogue sold at from 6½d. to 7d. per lb. Privately there has been a revival in the demand for the United States this week, and about a dozen bales which were to have been catalogued for auction found buyers prior to the sale at from 1s. 8d. to 1s. 9d. per lb. The crop at the Cape is said to be "practically at an end."

CALUMBA remains scarce; 20 bags fair washed sorts with large proportion of small sold at 30s. per cwt.

CARDAMOMS sold with fair competition at an advance of 1d. to 2d. per lb., the following rates being paid: Ceylon Mysore extra bold pale selected 2s. 7d. to 2s. 8d.; bold and medium palish to pale 2s. 2d. to 2s. 6d.; small and medium palish to pale 1s. 8d. to 2s.; tiny pale 1s. 4d.; mixed splits 1s. 8d.; small splits 1s. 6d.; pale seed 1s. 7d. to 1s. 8d.; fair small to bold Native wild Ceylon 1s. 6d.

CASCARA SAGRADA.—A parcel of 120 bags ordinary dark thick, 1907 crop, were limited at 35s. per cwt., gross for net. Privately 38s. per cwt. net is quoted in small lots.

CASHEW-NUTS.—Ten cases ordinary husky sold without reserve, for account of whom it may concern, at 32s. 6d., badly damaged going at 3s. per cwt.

COCA-LEAVES.—Eight cases fair brownish to green broken Ceylon-Truxillo sold at 7d. per lb. Privately good green Truxillo are offered at 10½d. per lb.

DRAGON'S-BLOOD.—Quiet. A single case of fair damp lump sold at 8s. 10s., being the private valuation; four cases of dull and damp seedy lump were held at 5l.

GAMBOGE.—Two cases fair bright native picked Siam pipe, slightly blocky, sold at 13*l.* 10*s.* per cwt.

IPECACUANHA.—In auction the tendency was easier for Cartagena. The only sale consisted of two bales fair Cartagena without reserve at 6*s.* 5*d.* per lb., and a bale of washed pickings, mostly stems, was held at 5*s.* 6*d.* Another lot of seven packages Cartagena was bought in at 7*s.*, no bids being made. Fair cultivated Minas (two bales) were bought in at 11*s.* 6*d.*, the broker intimating he would "take less," and no Rio was offered, the private price being 12*s.*

The "New York Commercial" of March 12 states that dealers report another sharp advance in Cartagena ipecac, and no offers could be found below \$1.50. Stocks in this market are rapidly diminishing, and what there is appears to be held in few hands. These interests report that while they are quoting \$1.50 they will sell only a few bales at that figure, and the general expectation is that higher prices will prevail in the near future. . . . The supplies of Rio have been reduced to a minimum.

KOLA.—Fifteen bags small to medium fair washed quarters and halves were held at 3*½d.*

OIL, CASSIA.—In the drug auction 24 cases China, containing 75 per cent. to 80 per cent. cinnamic aldehyde, sold at from 3*s.* 2*d.* to 3*s.* 3*d.*, with one lot at 3*s.* 4*d.*

OIL, CINNAMON.—Twelve cases of good bright Ceylon leaf oil sold at 2*½d.* per oz. to various buyers.

OIL, PEPPERMINT.—Ten cases Japanese (Yazawa) sold without reserve at 5*s.* per lb., being a decline of about 3*d.* per lb. on private asking rates. A further 25 cases Japanese dementholised sold without reserve at from 5*s.* 2*d.* to 5*s.* 5*d.* for Kobayashi, 5*s.* 1*d.* for Suzuki, and 5*s.* 1*d.* for Yazawa; a protected parcel was bought in without mention of price. Privately American HGH is quoted 10*s.* 6*d.* London terms, and Wayne County 8*s.* to 8*s.* 3*d.* net. Business has been done in Japanese (Suzuki) at 5*s.* 2*½d.* per lb. c.i.f. for March-April shipment.

ORCHELLA WEED.—A parcel of 291 bales (more or less externally stained) sold at 10*s.* for sound, and at from 4*s.* 6*d.* to 8*s.* 6*d.* per cwt. for sea-damaged.

ORRIS.—Twenty bales fair Mogador were held firmly at 27*s.* 6*d.* per cwt., no discount; gross for net.

RHUBARB.—No sales were made. Bold flat Canton with threequarters fair pinky fracture was held at 1*s.* 1*d.* to 1*s.* 2*d.*; small round and trimming root Canton at 1*s.* 2*d.* also, and pickings at 10*d.* Flat high-dried was limited at 1*s.* 1*d.* for small to medium with threequarter good colour, and small to medium round horny ditto is worth 6*½d.* to 7*d.*

SARSAPARILLA.—Quiet. Only two bales grey Jamaica offered and sold at the steady price of 1*s.* 3*d.*; 12 bales Native Jamaica were offered and part sold at from 10*d.* to 11*d.* for fair red and tawny, dull mixed and yellow (sea-damaged) going at 8*½d.* Of Mexican 10 bales were offered and three sold at 4*½d.* for usual chumpy character. Lima-Jamaica was bought in without mention of price. Privately Mexican is quoted at 5*½d.* per lb.

SENNA.—The limited quantity of Tinnevelly offered met with keen competition, prices advancing about $\frac{1}{2}d.$ per lb. The bulk consisted of small and medium yellow leaf, which sold at from 1*½d.* to 1*¾d.* per lb., and middling brought 2*½d.*; for pods from 2*¼d.* to 2*¾d.* was paid, as to quality. Of Alexandrian two bales dust realised 1*½d.*; good leaf was held at 8*d.* to 9*d.*, and pale pods at 6*d.* per lb.

TRAGACANTH.—Three bags siftings sold without reserve at 77*s.* 6*d.* per cwt.

TURMERIC.—In the drug auction 30 bags of Cochin split bulbs were limited at 14*s.*, and 10 bags of powder found a buyer at 8*s.*

WAX (BEES).—Quiet. Four cases of grey to good fair Australian sold at 7*l.* 17*s.* 6*d.* per cwt., being firm; 15 bags of Italian, of doubtful character, sold at 67*s.* 6*d.* per cwt., without reserve, and 170 packages Madagascar were bought in; a bid of 6*l.* 17*s.* 6*d.* is to be telegraphed for darkish block; the value of good pale brown is 7*l.*

An ORIGINAL EDITION of the works of Ambrose Paré, published in Paris, 1584, folio, was sold at an auction-room in Chancery Lane, London, last week, for 35*s.*

Synthetic Rubber.

"**DE INDISCHE MERCUR**" of March 8 published some particulars of the work done by the Synthetic Rubber Co., which was formed in this country about three years ago to investigate various processes proposed for the manufacture of synthetic rubber. The company first of all examined the Gottschalk process, and this was speedily disposed of, as it was found impossible to produce rubber by it. Attention was then directed to the Heinemann process, which also proved to be valueless, after 1,000*£*. had been expended in experiments with it. At this stage the company undertook research work on its own account, and at one time it seemed to be on the high road to success. At a meeting held in March 1909 the President announced that they were in possession of a satisfactory method of making rubber, and a call on the shareholders was made in order to defray the cost of large-scale trials. This process is believed to be that invented by Liley, of Oxford University. It is understood that this actually yields a product having the chemical and physical properties of rubber, but that the cost of production is so high as to render its working unremunerative under present conditions. The article continues with the remark that it is not impossible that a synthetic rubber may be made eventually, but that until the price of natural rubber rises to about 20*s.* per lb. it is very improbable that it can be made at a profit. The possibility of rubber rising to this value it considers is very remote, since the output from plantations will increase rapidly in the next few years, so that there is likely to be a decline rather than a further rise in price. The view taken in the article referred to seems to be that generally accepted by rubber planters, and it must be admitted that at the present moment the chances for the production of synthetic rubber seem to be poor. It is generally believed that in the most favourably situated and best managed plantations in Ceylon the cost of production of sheet Para rubber of the best quality is about 1*s.* 2*d.* to 1*s.* 3*d.* per lb., and that such rubber could be marketed profitably at 1*s.* 6*d.* On the other hand, it seems to be thought that the only possible raw material for the manufacture of rubber is turpentine oil, and with the production of this article already unable to overtake the demand, it is not a promising source, and its price even now precludes its use for rubber manufacture, even if a good process were discovered. It is a mistake, however, to suppose that there are no other promising raw materials. What is needed is a cheap unsaturated hydrocarbon, capable of ready condensation to form very complex molecules, or an unsaturated acid obtainable in large quantities from which such a hydrocarbon can be easily prepared. Two raw materials naturally suggest themselves in this connection—viz. acetylene, and one or other of the liquid unsaturated acids of the drying and semi-drying oils, and it is probably by the use of such products that the problem will be solved, if it is solved at all.

No case of purely functional dyspepsia can resist a pedestriantour over the Alps, says Sir James Johnston.

PATIENTS who suffer from symptoms of gall-stones very often do not drink enough, says Sir T. Lauder Brunton. A glass of hot water should be drunk slowly one hour before every meal, and also while dressing in the morning and while retiring at night.

SOYA-BEANS.—The "Times" of March 18 announces that cable advices have been received from the United States stating that it is the intention of the Government to repeal the existing duty on soya-beans and to admit them free. Concurrently it is also advised from Kharbin (Manchuria) that an American syndicate has been formed to purchase all stocks of these beans now existing in Manchuria. The effect on the market for soya-beans and soya oil and other oil seeds and seed oil has been marked by a general advance in prices and by inquiries from America for offers of soya oil to be shipped to American ports from this country. Supplies of soya-beans are drawn almost entirely from Manchuria, and have so far been mostly absorbed by the British market.



Memoranda for Correspondents.

All communications must be accompanied by the names and addresses of the writers, otherwise they are not recorded. Queries by subscribers on dispensing, legal, and miscellaneous subjects pertaining to pharmacy and its allied trades are replied to in these columns, if they are of general interest. Letters submitted to the Editor for publication (if suitable) should be written on one side of the paper only. Their publication in the "C. & D." does not imply our agreement with the opinions of the writers.

The Pharmacists' Representation Committee.

SIR.—Mr. Rymer Young, in his letter published in the *C. & D.* of March 19, does not definitely state whether the committee intend to run two candidates—one from each of the chief political parties—at the next election, but implies that this will be decided in accordance with the amount of financial support received. Surely this is an inverted procedure, for no consistent Conservative can support a fund which he is exultingly told is being used to wrest a seat from his party, unless he is assured that this will be counterbalanced by a grant to a Conservative pharmacist to enable him to attack a Liberal stronghold. The times are too critical for any man to be asked to swallow his convictions for the sake of his business.

Yours faithfully,

Exeter, March 21.

H. WIPPEL GADD.

Essential Oils of the British Pharmacopœia.

SIR.—We have read with a great deal of interest the proposals which Mr. C. A. Hill and Mr. J. C. Umney make as regards standard qualities of essential oils for the new British Pharmacopœia, and would remark in general that we should not consider it desirous to have the data of the refractive index put up as standards, as we are perfectly sure that most dealers in and consumers of essential oils are not in possession of a refractometer, and would therefore not be in a position to control that part of the tests. We should also consider it a mistake if the boiling-point test were introduced for examining essential oils, as we are convinced that it would lead to innumerable unfounded complaints because the conditions under which it is made can differ so largely. Should one nevertheless deem it necessary to adhere to this test, then we should consider it indispensable to give minute and detailed directions as to the apparatus to be used and the way it is to be applied, as the manner of examining these particular essential oils would probably in every case vary one from the other. As to the proposed changes in the monographs we append some observations :

Oleum Anethi.—Our own distillates often show a higher sp. gr. than 0.910. We propose a top limit of 0.915.

Oleum Cajuputi.—We consider the requirements of the present B.P. and the methods adopted for examining the oil better than those now proposed, for it is unlikely that the method of determining the cineol-content can be carried out by ordinary small laboratories. Should the cineol-test, nevertheless, be made a standard, we should consider the method of proving it required by the present U.S.P. better than that proposed by Messrs. Hill and Umney, as theirs can only in very rare instances give exact results.

Oleum Carui.—As all Pharmacopœias which mention this oil do not require a higher sp. gr. than 0.905 to 0.915, we consider these standards sufficient. The distilling-process seems unnecessary, as all the other tests suffice to prove the good quality of the oil.

Oleum Cinnamomi.—We have found pure oils of our own distilling soluble in equal parts of 30-per-cent. alcohol which are not soluble in 3 to 4 volumes of 70-per-cent. alcohol, and do not therefore consider the solubility-test proposed correct, as it would to a certainty exclude a number of fine and pure cinnamon oils. Nor is it reliable, as oil of cassia is, for instance, even more easily soluble. We would leave out the solubility-test entirely. On the other hand, we agree with the sp. gr. proposed, but suggest to lower the bottom limit of cinnamic-aldehyde content to 50 per cent., as we have often found pure distillates not having more.

Oleum Copaiaba.—It is not easy to find really genuine copaiba balsam. We think we have discovered a reliable source, and have now for several years distilled this quality.

The oil derived from it invariably has a sp. gr. of 0.890 to 0.900. In our opinion, it is therefore absolutely necessary that the bottom limit be lowered to 0.890. The distilling-process should not be introduced, as it gives inaccurate results, which might exclude pure oils.

Oleum Cubeba.—We again repeat that the distilling-process can very easily give rise to wrong conclusions. It should therefore be omitted, all the more as the other tests suffice.

Oleum Eucalypti.—We have often found eucalyptus oils with a higher eucalyptol (cineol) content than 55 per cent. to be soluble in not less than 10 volumes, and even more, of 70-per-cent. alcohol. Therefore the solubility-test should read : "Soluble 1 in 10 volumes of 70-per-cent. alcohol."

Oleum Juniperi.—We consider the requirements of the present B.P. better, because Messrs. Hill and Umney's proposals might give rise to misconceptions, and might also exclude pure oils which, on account of their not being quite freshly distilled (it is a well-known fact that juniper oil oxidises particularly quickly), would not entirely stand the new solubility-test.

Oleum Larandula.—We have never observed a higher sp. gr. for pure oils than 0.895, and should prefer to have the top limit lowered to this figure, as the addition of artificial esters would thus be made more difficult.

Oleum Limonis.—As long as there is no reliable method of determining the content of citral in a really easily practicable way, it seems absolutely useless to put up a citral standard at all.

Oleum Menthae Piperita.—Most of the present Pharmacopœias require a solubility of 1: 5 in 70-per-cent. alcohol. We consider this a sufficiently fine test (as most oils of peppermint have to be rectified in order to ensure solubility), and therefore do not agree with the solubility 1: 4 in 70-per-cent. alcohol, as proposed.

Oleum Menthae Viridis.—We think an optical rotation of -30° to -55° would be more correct, as a great many pure American oils of spearmint rotate higher than -50°.

Oleum Pimenta.—We have found pure oils of our own distilling which are soluble 1 in 3 volumes of 70-per-cent. alcohol, but give a cloudy solution if more 70-per-cent. alcohol is added. We suggest a supplementary research on this point.

Oleum Rose.—As regards this oil, we agree to the letter with the remarks made by Mr. W. Naumann in THE CHEMIST AND DRUGGIST, 1910, p. 341.

Oleum Sinapis.—The only way of sophisticating this oil which need be taken into consideration is by means of artificial oil of mustard. As the presence of this oil cannot be proved either by determining the boiling-point or by any other method, however complex, we propose to substitute the artificial for the genuine oil unless differences between the two can be found and are taken from a medical or physiological point of view—possibilities of which we, however, as yet know nothing.

Olea Gaultheria et Betula.—The same remarks apply to these oils as to mustard oil. We propose the introduction of artificial oil of wintergreen—i.e., pure methyl salicylate.

We have no remarks to make on the monographs dealing with ol. anisi, ol. anthemidis, ol. aurentii, ol. caryophylli, ol. coriandri, ol. foeniculi, ol. myristice, ol. pini, ol. rosmarinii, ol. santali, ol. terebinthina, and ol. thymi.

Could not oils of bitter almonds and cherry laurel, both with full contents of prussic acid, be made official?

Most essential oils introduced into Pharmacopœias have a certain medicinal value. One of our *confrères* proposed to substitute the chief constituents of several essential oils in place of the oils themselves. This would be perfectly correct if it were a question of simply having the pure aromatic principle. As yet there is, however, no irrefutable evidence from a medical or physiological point of view that in all possible cases the efficacy of the isolated constituents in question is better than that of the essential oil in its entirety. We are well aware that even the best scientific methods are not able to enforce purity of essential oils in trade. The best guarantee is the good repute of the firm one buys from, combined with a willingness to pay reasonable prices.

Yours faithfully,

E. SACHSE & CO.

The Golden Future.

SIR.—I am frequently interested in the remarks made by various reformers who seek to create a golden future for pharmacists. This is very proper. Also I observe that on the evening of February 17, at Stoke, Mr. Young admitted that the average candidate for the Minor has to take some three attempts ("shots"). Has Mr. Young considered the price of these "shots"? Is he acquainted with the difference in the requirements of his day and

now? What sort of a show would he or any one of those who sit in the mystic circle make at the Preceptors' ordeal? Most candidates for the latter have to take three or more "shots." But *cui bono?* It is reported that between this and next year some 4,000 new drug-stores will be opened. Among these, I daresay, Mr. Young and his compeers will find a majority whose "three shots" have found a billet in the funds of the mutual admiration Society. Meanwhile the candidate in heart-sick obscurity sees rising above the horizon at last the apocalypse of another society fitted for the true needs of the time.

Yours etc.,
ROBESPIERRE. (102/34.)

Subscribers' Symposium. (Information Solicited or Supplied.)

An Old Subscriber's Appreciation.

The information given in answer to my inquiry is quite satisfactory, as it always has been whenever I have troubled your Department during the many years I have been a subscriber, having commenced with the first number.—E. (102/54).

Megrims in Pigeons.

I have just received by post a living specimen suffering from this complaint. It is a beautiful bird of exquisite plumage and is styled "Archangel." Thinking it possible that some of your numerous readers may be experienced in the pathology of feathered fowl, how to treat and rather how to prevent so fatal a complaint, I venture to trouble you with this line. Information would be thankfully accepted by—*Avis* (109/67).

An Income-tax Warning.

Notwithstanding the present financial deadlock, all claims for the return of income-tax (e.g., in respect of income being under 700*l.*, interest paid to bankers or life insurance premiums) should be preferred before the end of the financial year on April 5 next. If these claims are not received in Somerset House on or before that date, one whole year's tax, now recoverable may be irrevocably lost.—*Wilfred T. Fry* (The Income-tax Reclamation Association, Ltd.).

Saccharum Lactis.

The official tests are very meagre, and the U.S.P. gives but little more. The E.P. does not say that the aqueous solution should be clear, nor does the U.S.P., and at once one is confronted with the question, Should it be clear or turbid? There appears to be wide differences in turbidity in solutions of commercial samples, and therefore it is concluded that the desire is to have no turbidity at all, and this is suggested as an additional remark in the next official monograph.—*Abel Scholar*. (75/96.)

Permanganate as a Test for Morphine and Codeine.

The above reagent can be used as a test for morphine and codeine. The test depends on the colour given on moistening a crystal of the alkaloid and reagent placed together on a white surface, and leads to speculative results as to the nature of morphine as supplied by home and foreign manufacture. I tested two samples of morphine hydrochloride and obtained a distinct green and yellow, leading me to suggest that one of the two samples might contain codeine, as precisely the green tint obtained is given by codeine.—*J. C. Thomlinson, B.Sc., A.Ph.Sc.* (Dunelm).

A Seasonable Side-line.

On entering a chemist's shop in one of our large Yorkshire cities a few days ago, I saw upon the counter a large brown earthenware bowl, with a wooden spoon inside, and a ticket attached, "Brimstone and Treacle, 4*d.* per lb." This soon brought the picture before me of the renowned Nicholas Nickerby of Dickens. Mr. Chemist told me he does rather a big business in this line at this time of the year, and it was very profitable. I told him I hardly thought it was a chemist's line, but he replied, "Every little bit added to what you have got makes a little bit more."—*A. Hugh Jones* (Leeds).

Improperly Stamped Proprietaries.

Messrs. Brook, Parker & Co., Ltd. (Bradford), write to say that a local excise officer has informed a Bradford chemist that certain imported proprietary medicines are illegally stamped, inasmuch as the stamps are fixed on the outside of the cartons, so that the bottles can be taken out by cutting away the bottom of the carton. It is the intention of the Board of Customs and Excise to take action against the agents or makers of preparations which are stamped in this manner.

[It is a long-established rule that (to quote the *C. & D. Diary*, p. 234) "the stamps must be affixed in such a manner that they will be destroyed when the packages are opened."—*EDITOR C. & D.*]

Chemiker v. Apotheker.

In a recent number of the *C. & D. "Xrayser II."* talked about the position of chemists in Germany, etc. (p. 325). Well, a few days ago I came across the prospectus of the director of a laboratory in Thuringia who trains only female chemists, and he dwelt upon the advantages of engaging these ladies turned out by him. They are fully competent to do everything required of a male, they are very much cheaper, and less exacting. To understand this it must be remembered that the salaries paid to pharmaceutical assistants in Germany are looked upon with envy by the average works chemist, and some time ago this fact was commented upon in the professional Press, it being urged that many chemists would do better by going over to pharmacy.—*Apotheker* (102/60).

Soya Bean as a Food Stuff.

I had quite a lot of experience with Soya bean cake a year ago. There is no cyanogenic glucoside present. The trouble arises through the excessive richness in nitrogenous or albumenoid constituents (the oil included), and through the great density of the powdered beans. The death of cows has been proved to be due to the excessive amount of the powder they got through the heavy soya meal settling to the bottom of the gruel or soup, and thus allowing the last cows in the row to get a very rich dose of feed. Surfeit—pure and simple. The beans exhausted by petroleum ether (or other solvent) would naturally contain less poisonous principle (assuming such to be present) than would powder containing the full natural percentage of oil. I take it, at any rate, that this would be possible. The solvent most likely would extract at least a portion of the (alleged) poisonous principle. The fact that in the cases which came under my notice the meal was "extracted" by solvents, yet proved fatal, shows that the trouble is a "surfeit" one. Twenty cows in a row in one cowshed were fed from the same truck of mash. The last three in the row died, the two immediately preceding them in the row were very ill, but recovered under treatment, while the other fifteen were unaffected. The order of feeding was always the same. Another case confirmed this—the last cow or two suffered. I had previously had a good deal of experience of the Java beans, and there was no difficulty in proving hydrocyanic acid present in quantity in them.—*F. C. S.* (112/1.)

Dispensing Notes.

Most dispensing problems are dealt with in "The Art of Dispensing," but we are always pleased to get fresh ones for solution, and to receive the opinions of readers on the points discussed.

A Throat Paint.

SIR,—Will you please inform me through the pages of the *C. & D.* if this prescription can be dispensed in clear solution?

Acide phenique	...	...	...	1.00 gram
Iode puris	...	...	...	0.20 gram
Iodure potassium	...	...	...	0.40 gram
Chlorhydr. cocaine	...	...	...	0.10 gram
Glycerin. puris	...	...	...	40.00 grams

Mixture for the throat.

Yours truly,

OSTEND. (112/20.)

[Dissolve the phenol in the glycerin; let the iodine and iodide of potassium stand with 0.6 gram of water till solution is complete, then mix with the phenol and glycerin; put the cocaine hydrochloride into a mortar and triturate thoroughly with a little of the mixed solutions, then gradually add the remainder, continuing the trituration steadily while the addition is proceeding. Prepared in this way the solution is practically clear. There is a small and very fine precipitate of alkaloid which rises to the surface with the air bells, and can scarcely be distinguished from them. We have tried several ways of making the solution, but that described above gives the best result.]

Legal Queries.

Consult the legal information in "The Chemists' and Druggists' Diary," 1910 before writing about your difficulty.

J. S. (112/17).—"Balsamic Syrup" is not a dutiable description. Your label is therefore free from liability.

H. J. J. (115/37) asks: Is an unqualified man liable under the Poisons Act for the use of cocaine in extractions? [No.]

E. T. (111/32).—Two-thirds of the rental of a shop and residence house is the proportion generally allowed in respect to the shop.

J. D. O. (114/66).—See *C. & D. Diary*, p. 210. Before asking questions as to the law of poisons (real or supposed) the *Diary* should always be referred to.

Duplex (112/34).—The Pharmaceutical Society of Great Britain does not admit a pharmaceutical chemist of Ireland to the Minor examination unless he can show that he has passed a Preliminary examination approved by the Society; and the Preliminary examination of the Pharmaceutical Society of Ireland is not one of these.

Primrose (111/11) asks: "Is it necessary for a person holding an indenture of apprenticeship to obtain from the Board of Customs and Excise a certificate or any letter of exemption to enable him to sell 'known, admitted, and approved remedies,' or is the fact of his holding the indenture sufficient?" [The indenture should be produced when required, but it may save trouble to submit it to the local officer when the licence to retail stamped medicines is applied for. The Board does not, and we hope never will, issue certificates of exemption.]

F. C. S. (98/43).—The original "Dr. Coffin's Composition Powder" is a proprietary article sold in stamped packages by the successors to Dr. A. I. Coffin, and any use of Dr. Coffin's name in connection with similar powders would necessarily involve stamping, while it might also bring the user into conflict with Dr. Coffin's successors, who claim the sole right to such use. In Dr. Coffin's "Botanic Guide to Health" the following formulae are given for composition powder, but whether or not his firm's preparation is made by either of these formulae does not transpire:

Bayberry	...	...	...	...	4 oz.
Pinus canadensis	...	...	...	2 oz.	
Ginger	...	...	...	2 oz.	
Cloves	...	...	...	½ oz.	
Cayenne	...	...	...	½ oz.	
OR					
Bayberry	...	...	...	4 oz.	
Pinus canadensis	...	...	...	4 oz.	
Ginger	...	...	...	4 oz.	
Golden seal	...	...	...	2 oz.	
Sassafras	...	...	...	2 oz.	
Cloves	...	...	...	½ oz.	
Cayenne	...	...	...	½ oz.	

All finely pulverised and well mixed. Ordinary dose, a teaspoonful in a cup of hot water, sweetened.

In view of the fact that the original "Dr. Coffin's Composition Powder" is and always has been a proprietary article, any reference to Dr. Coffin on the label of any composition powder would preclude it from the "known, admitted, and approved remedies" exemption.

MISCELLANEOUS INQUIRIES.

As we do not in this section repeat information given during the past twelve months, inquirers should refer to the copies mentioned. Back numbers for the past five years can generally be obtained from our office at the published prices.

Scot (114/48).—**SAPO MOLLIS PEROLEATUS** is a preparation prescribed by a leading Edinburgh dermatologist, and the formula is given in the Edinburgh Infirmary Pharmacopœia as follows:

Tallow	...	...	...	...	4 lb.
Olive oil	...	...	...	10 oz.	
Potassium hydroxide	...	...	...	6 oz.	
Sodium hydroxide	...	...	...	4 oz.	
Borax	...	...	...	½ oz.	
Distilled water	...	...	...	...	1½ gal.

Dissolve the potassium and sodium hydroxides and borax in the water; heat to boiling; add the tallow and oil, boiling until well saponified and of proper consistency when cold.

Zingib. (103/43).—**LINTNER METHOD OF TESTING MALT.**—It is not possible for us to describe in detail the Lintner method of determining the diastatic power of malt-extract; but briefly it consists in allowing a standard solution of soluble starch at 70° F. for an hour, the amount of extract being so adjusted that the solution after the action does not contain more than 40 per cent. of maltose calculated on the total solids. Under these conditions the diastatic power of the solution is directly proportional to the amount of maltose produced, or to the cupric reducing power. One hundred units on the Lintner scale correspond with that amount of diastase required to reduce 5 c.c. of Fehling's solution. The most convenient modification of the Lintner method is that devised by Mr. A. R. Ling, which was adopted by the Malt Analysis Committee of the Institute of Brewing in 1905. Copies of the report of this may be obtained of the Secretary of the Institute of Brewing, Brewers' Hall, Addle Street, E.C., at a charge of 6d. The Lintner value cannot be calculated at all accurately from the B.P.C. value, since the starch-conversion in that case is carried out at a different temperature.

Booco (96/59).—**FLOOR-POLISH.**—We gave you a formula for floor-polish in the *C. & D.*, May 23, 1908, p. 816. You repeat your inquiry without offering any explanation.

Eucalyptus (108/58).—**PHOSPHORUS PASTE.**—You will find that a fair proportion of sodium chloride will be the best preservative for the phosphorus paste containing fish or flesh. The usual proportion of phosphorus in this preparation is from 1 in 70 to 1 in 90.

A. G. R. (110/18).—You do not say for what purpose the alkali blocks are required. Powdered caustic soda diluted with dried sodium sulphate and compressed would be soluble in water.

W. G. R. (109/29).—The composition of plasticine given in the *C. & D.*, November 6, 1909, p. 734, was stated by the manufacturer in a communication to "The Lancet." There are several heavy powders that could be used in a harmless modelling composition, such as prepared chalk or kaolin.

J. C. (106/8).—Such profuse and frequent bleeding from the nose as you describe should be treated at once by a medical man, as it may be caused by one of several conditions, some of which are serious.

T. H. (108/12).—**ACID IN FRUIT-SYRUPS.**—Salicylic acid is particularly effective in stopping the fermentation of acid liquids, and on that account is employed as a preservative in fruit-syrups and cordials in the aerated-water trade. The use of a preservative is not illegal, but an excessive quantity might be held to be injurious under the Sale of Food and Drugs Acts. A prosecution took place in Liverpool some years ago in which it was alleged that the use of salicylic acid in non-alcoholic wines was injurious. The prosecution failed because the medical evidence was to the effect that the quantity present would not do anybody any harm. See also reports in this issue, p. 466.

Bede (113/24).—**FELT-HAT REVIVER.**—This is powdered borax slightly tinted with methylene blue.

Veleno (100/59).—(1) **NON-POISONOUS STRAW-HAT CLEANING POWDER.**—This consists of cream of tartar. (2) **RHEUMATISM PASTE FOR EXTERNAL USE.**—This is limimentum potassii iodidi cum sapone.

Canadian (107/41).—(1) **ICE-CREAM POWDER.**—The powder you send is similar in composition to the one referred to in the *C. & D.*, May 2, 1908, p. 694, where directions for use are also given. (2) **ECZEMA OINTMENT.**—An ointment resembling your sample can be made by melting together equal parts of lead plaster, vaseline, and lanoline, and when cold incorporating a small proportion of pine oil.

L. A. W. (107/3).—**POLISHING EDGES OF PLATE-GLASS SHELVES.**—The edge is first smoothed by pressing it against a swiftly revolving stone wheel fed with sand and water, and then to a revolving iron wheel upon which fine emery is used. These are followed by wooden polishing-wheels charged with putty powder and rouge, the final finish being given by felt surfaces. The wooden wheels are made of willow, elder, or cherry wood. Mr. E. G. Rider, Pott Street Ironworks, Ancoats, Manchester, specialises in machinery for polishing and bevelling glass, and from him you could obtain the polishing-wheels for fixing to your lathe.

W. B. (19/3).—**SULPHUR FUMIGATION.**—The method in which liquid sulphur dioxide is employed was described in the *C. & D.*, June 8, 1907, p. 877, but sulphur candles are a convenient form of sulphur when the liquefied gas is not obtainable. The room should not be opened for twenty-four hours after the fumigation.

X. Y. Z. (101/33).—**BOILER-INCRASTATION FLUID.**—The liquid you send, used for preventing incrustation in steam-boilers, resembles the No. 2 formula given in the *C. & D.*, September 25, 1909, p. 526. Another recipe will be found in "Pharmaceutical Formulas."

O. T. (111/15).—**CARBOLIC TOOTH-POWDER.**—The basis of this is precipitated chalk and kieselguhr, the colouring-matter being eosine or erythrosine or a mixture of both.

P. C. H. (219/12).—**COMPOSITION OF POWDER** for headache, quinsy, influenza, toothache, and gout.—This consists of salicylic acid, which is administered internally for quinsy in doses of 5 to 20 grains.

Veritas (113/10).—**LETTERING ON MIRRORS.**—The lettering is done on the back of the glass-plate by means of oil paints, the lettering being reversed. When dry the paint is varnished before silvering to make the mirror. The process employed is to precipitate metallic silver on the glass; this was described in the *C. & D.*, January 11, 1908, p. 69. The old mercury process is not employed to any extent at present, and is, moreover, not suitable for lettered glass.

J. Y. F. (106/58).—NICOTINE FUMIGANT should be diluted with two parts of water before evaporating by means of the usual lamp, with the object of preventing scorching. Fumigation should be carried out at night in a moist atmosphere. These matters are fully dealt with in *The Chemists' and Druggists' Diary*, 1910, pp. 217 and 222. The nicotine employed can be obtained guaranteed to contain 98 per cent., but 90 per cent. is the minimum allowed to be sold.

J. H. W. (Natal) (105/44).—(1) BOOKS ON SYNTHETIC PERFUMES.—Derville's "Nouveau Guide du Parfumeur" (5f., Desforges, Paris) and Mann's "Die Moderne Perfumerie," (Ziolkowsky, Augsburg) are the most modern works on this subject. Messrs. Charles Zimmermann & Co., 9 and 10 St. Mary-at-Hill, London, E.C., also publish in English a "Guide to the Employment of Perfumes" (see *C. & D.*, April 3, 1909, p. 539). (2) BOOK ON BILHARZIA.—The standard work, Madden's "Bilharziosis" (3s. 6d., Cassell), contains particulars of the treatment for the disease, which vary according to the position of the parasite.

Sphinx (115/50).—NERVE OIL.—Neatsfoot oil is sometimes so called, but in prescriptions (foreign especially) the following is meant:

Ol. carui	...	...	...	...	5 <i>ij.</i>
Ol. rosmarinii	...	...	...	...	5 <i>ij.</i>
Ol. origani	...	...	...	...	5 <i>ij.</i>
Ol. anthemid. infus. ad	...	...	...	...	5 <i>vj.</i>

T. L. (100/59).—LUBRICATING-OILS.—We published an article on this subject in the *C. & D.*, May 28, 1898, p. 878, which gives just the points about lubricants you desire. If you have not that number by you it could doubtless be obtained through an advertisement in the "Coloured Supplement."

R. T. F. (103/74).—We cannot say what special varnish is employed for clarionette reeds. Perhaps some reader can supply the information.

S. B. (101/26).—Try alkanet for colouring paraffin oil.

Dermus (91/12).—We cannot undertake the analysis of what is supposed to be a "sneezing powder." If it is the article known as "electric snuff," it should not be sold by chemists.

Bulgarian (82/43).—Lactic-acid tablets can only be profitably prepared on a manufacturing scale. A culture of *Bacillus caucasicum* and other similar bacilli is mixed with sugar of milk, dried at a low temperature, and compressed in a germ-free atmosphere.

Warren (102/29).—THE FOOT-ROT LOTION is overloaded with salts. We should omit the verdigris and sulphuric acid from the recipe, as it already contains copper sulphate and acetic acid.

C. 381 (103/44).—COLOURING THE SHELLS OF EGGS.—The brown tint which the public view as an indication of the good quality of an egg is sometimes artificially given by means of a solution of *Bismarck* brown or potassium permanganate.

J. R. C. (100/33).—The petrol which it is desired to identify could be coloured with asphaltum. Some aniline dyes are slightly soluble in petrol, such as methylene blue, but colour might probably best be introduced by adding a little alcoholic solution of an aniline dye.

Law (8/3).—OFFICE ADHESIVE.—This should be thinned with water; the amount of acetic acid needs reducing rather than increasing, as an excessively acid adhesivo is inadmissible in some cases.

Drugs (95/61).—We do not understand your inquiry, but you will find a variety of cements such as are used by ironmongers in *The Chemists' and Druggists' Diary*, 1908, p. 213.

C. de W. (Ghent).—AMMONIUM FLUORIDE as a food-preserved is discredited on account of its pronounced physiological action. Hehner found that a solution of 0.04 per cent. of sodium fluoride or the corresponding equivalent of ammonium fluoride prevented salivary action, and that half the strength greatly interferes with peptic digestion. It has been found that hydrofluoric acid of the strength of 1 in 3,000 prevents fermentation in milk and wine. Ammonium fluoride has a legitimate use in the disinfection of the rubber hose pipes employed in breweries. For this purpose commercial acid ammonium fluoride (NH_4HF_2) is used in solution in the proportion of $\frac{1}{2}$ to 1 per cent.

A. K. H. (105/41).—HIRE-CHARGES FOR CAMERAS.—The charges per day for the hire of photographic apparatus are based on 10 per cent. of the value of the instrument, with reductions for a week's hire. It is necessary to obtain a deposit on a camera when letting it out to an unknown person. Now that cameras are so cheap an endeavour should be made to sell one rather than hire, as the latter part of the business is rather unsatisfactory.

H. N. (91/29).—BOOKS ON MEDICAL ELECTRICITY.—The standard works are Lewis Jones's "Medical Electricity" (Lewis, 12s. 6d.) and Morton's "Essentials of Medical Electricity" (Kington, 6s.), but neither is written from the point of view of the layman.

J. H. R. (229/8).—FACE-CREAM.—Refer to the series of articles which were given in the *C. & D.* during April 1909.

J. F. (105/35).—LIQUOR FERRI PHOSPH. PRO SYRUP:

Iron wire	...	...	...	300 grains
Concentrated phosphoric acid	...	...	...	5 oz.
Distilled water	...	...	...	a sufficiency

Dilute the acid with an equal quantity of water and place with the iron wire in a small flask. Plug the neck of the flask with cotton-wool and heat till the iron is dissolved. Filter and make up to 10 oz. One drachm of this liquor added to 7 drachms of thick syrup forms syrupus ferri phosphatis, B.P.

Sykes (91/42).—Dianthine G is a synonym for erythrosine G, the sodium or potassium salt of diiodofluoresceine. Dianthine B (known as dianthine) is erythrosine, the sodium or potassium salt of teraiodo-fluoresceine. These are aniline dyes and readily obtainable.

Our Retrospect.

(From the "C. & D.", March 15, 1860.)

Administering of Poisons Bill.

This Bill in no way affects our constituents. Anything in the shape of a Poison Bill naturally at once alarms them; therefore we are not surprised at the numerous inquiries we have received respecting the measure which has been introduced by the Government, has passed the House of Commons, and is now in the hands of the Upper House. In order to disarm all suspicion, we give its essence:

"Whereas the present law has been found insufficient to protect persons from the unlawful administering of poison, except in cases where the intent is to commit murder: Be it enacted by the Queen's most excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows:

"I. That whosoever shall unlawfully and maliciously administer to, or cause to be administered to, or taken by any other person, any poison or other destructive thing, so as thereby to endanger the life of such person, or so as thereby to inflict upon such person any grievous bodily harm, shall be guilty of felony, and, being convicted thereof, shall be liable to be sentenced to penal servitude for any period not exceeding ten years and not less than three years, or to imprisonment for any term not more than three years, with or without hard labour, at the discretion of the court.

"II. Whoever shall unlawfully and maliciously administer to, or cause to be administered to, or taken by any other person, any poison or other destructive thing, with intent to injure, annoy, or annoy such person, shall be guilty of a misdemeanour, and, being convicted thereof, shall be liable to be sentenced to imprisonment for any period not exceeding three years, with or without hard labour, at the discretion of the court, and the costs and expenses of the prosecution of any such misdemeanour may be allowed by the court as in cases of felony.

"III. If, upon the trial of any person charged with the felony above mentioned, the jury shall not be satisfied that such person is guilty thereof, but shall be satisfied that he is guilty of the misdemeanour above mentioned, then and in every such case the jury may acquit the accused of such felony, and find him guilty of such misdemeanour, and thereupon the delinquent shall be liable to be punished in the same manner as if convicted upon an indictment for the misdemeanour."

[This Bill became the statute 23 and 24 Vict., c. 8, and remained in force until June 20, 1892, when it was repealed as having become unnecessary. It was introduced in the House of Commons as a public Bill on February 21, 1860, read a second time on February 27, and a third time two days later. On March 1 the House of Lords read it a first time, and a second time on March 5, when the Lord Chancellor said it was to correct a defect in the law: to administer poison with intent to murder was a capital offence, but if with no such intent there was no offence in common law. The Bill, he added, consisted of two clauses: (1) made intent to endanger life or do bodily harm a felony, and (2) made intent to annoy a misdemeanour. It was read a third time on March 13, and received the Royal Assent on March 23, 1860. The provisions of the Act (I. and II. above) were embodied a year later in the Offences against the Person Act, 1861, Sections 23 and 24, and Section 22 of the same Act extended the principle of the statute to "chloroform, laudanum, or other stupefying or overpowering drug, matter, or thing." It is curious that 23 and 24 Vict.: c. 8, has been overlooked by commentators on poisons law.—EDITOR C. & D.]



What especially distinguishes Odol

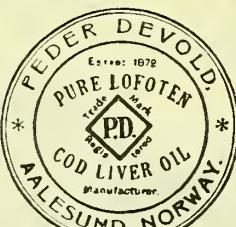
from all other mouth-cleansing preparations is its unique antiseptic properties. After the mouth has been rinsed with Odol an all-pervading influence spreads itself imperceptibly over the whole of the interior of the mouth, exerting its power for hours after the rinsing.

It is this lasting effect (which no other preparation possesses) that gives to daily users of Odol the absolute assurance that their mouths are permanently protected against the processes of fermentation and decomposition which, if not guarded against, inevitably destroy the teeth.

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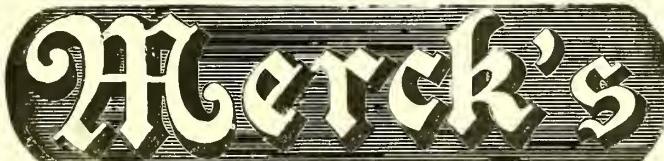
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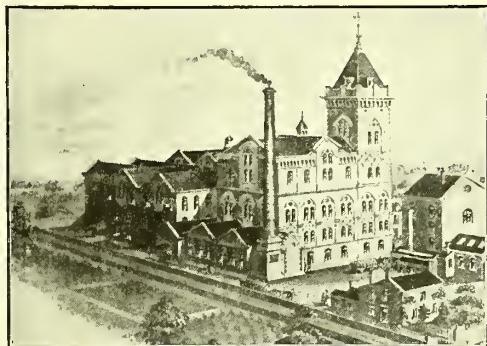
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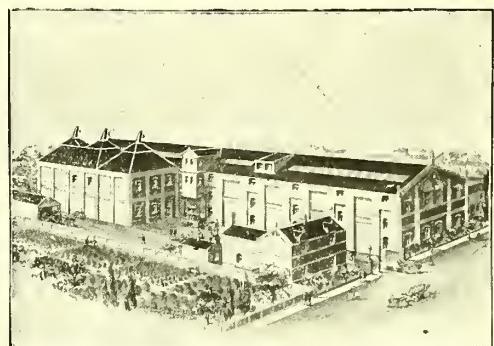


MILLS AND REFINERY.

Analysis

Total Solids 79·6
Maltose 70·0
Protein 7·9
Ash ... 1·6

DIASTASIC POWER
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1724°
Pharmaceutical Journal,
Nov. 27, 1909.



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Lymphatic Glands, Testes } gr. 2	Glycero Phosphate Sod. and Calcium ... gr. 2
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2. 23	5. 86	8. 382	10. 866
3. 39	6. 940		11. 0

No. 7 is DiaMalt, and the complete analysis showed:

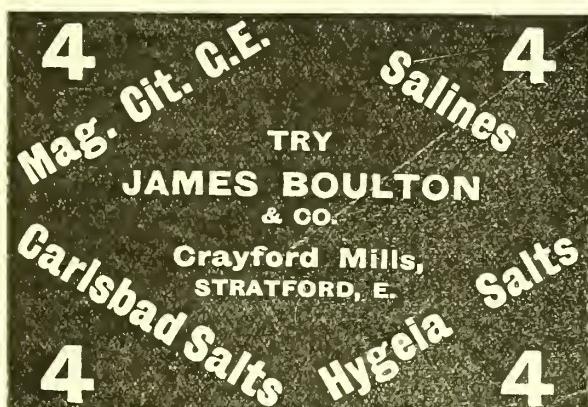
Total Solids 74 per cent. **Dextrin 12.7 per cent.**
Reducing Sugars (calculated as maltose) **Ash 1.2 per cent.**
 63·9 per cent. **Diastasic Power 1060.**
Protein 6.52 per cent.

See for yourself, by reference to the "B.M.J." of November 20, what the other ten are.

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Season 1910

BRAND AA

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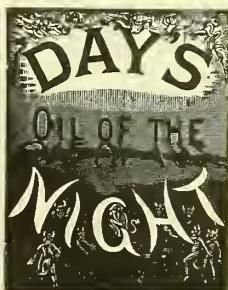
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Advertised Prices ... 1½ and 2½ per bottle.

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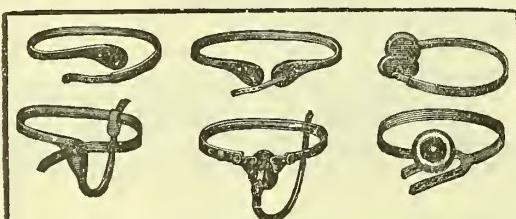
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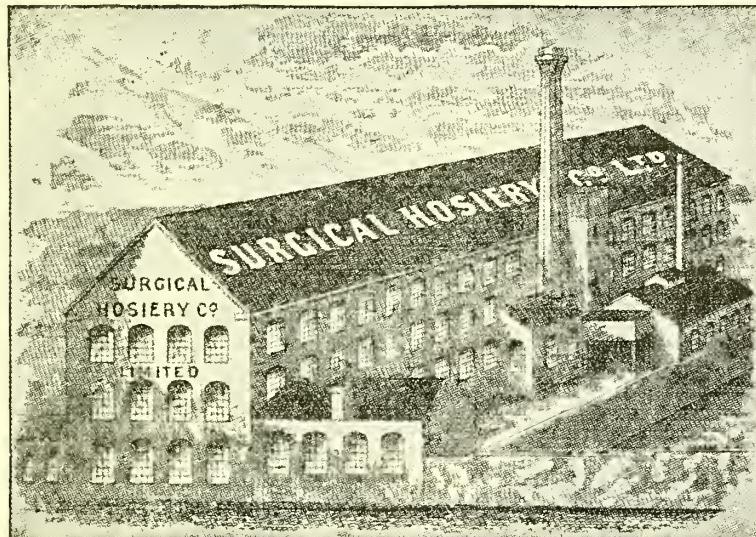
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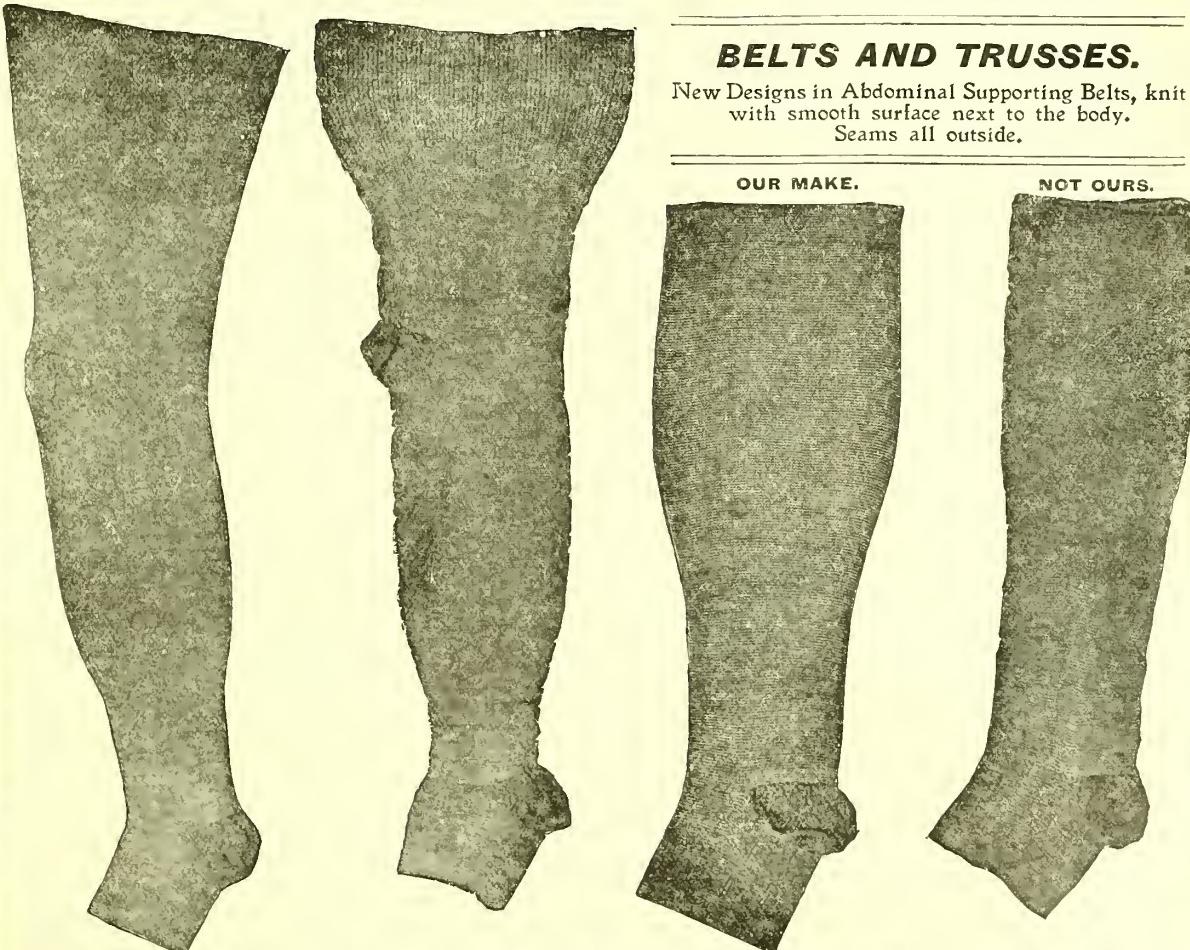
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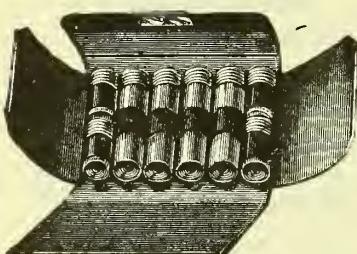
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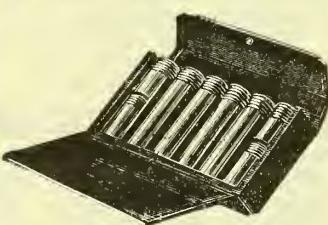


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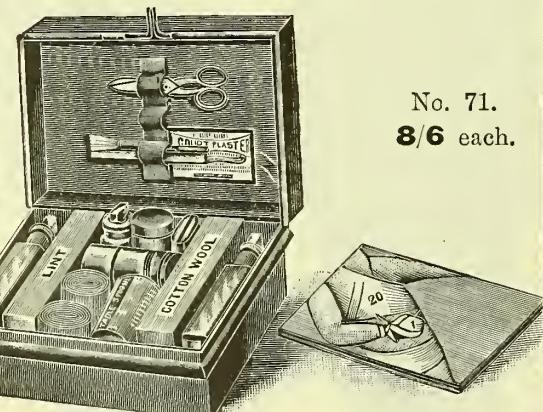


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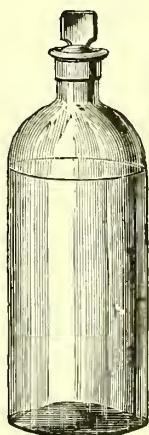
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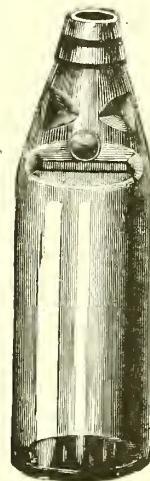
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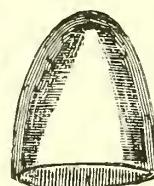
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[See p. 147, C. & D., April 24, 1909.]



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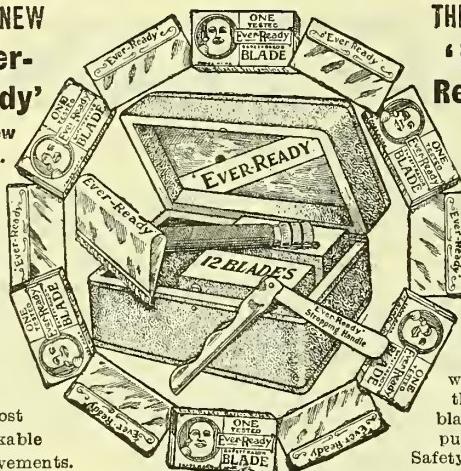
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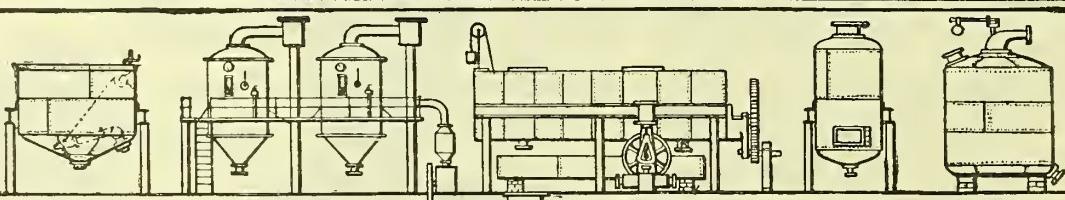


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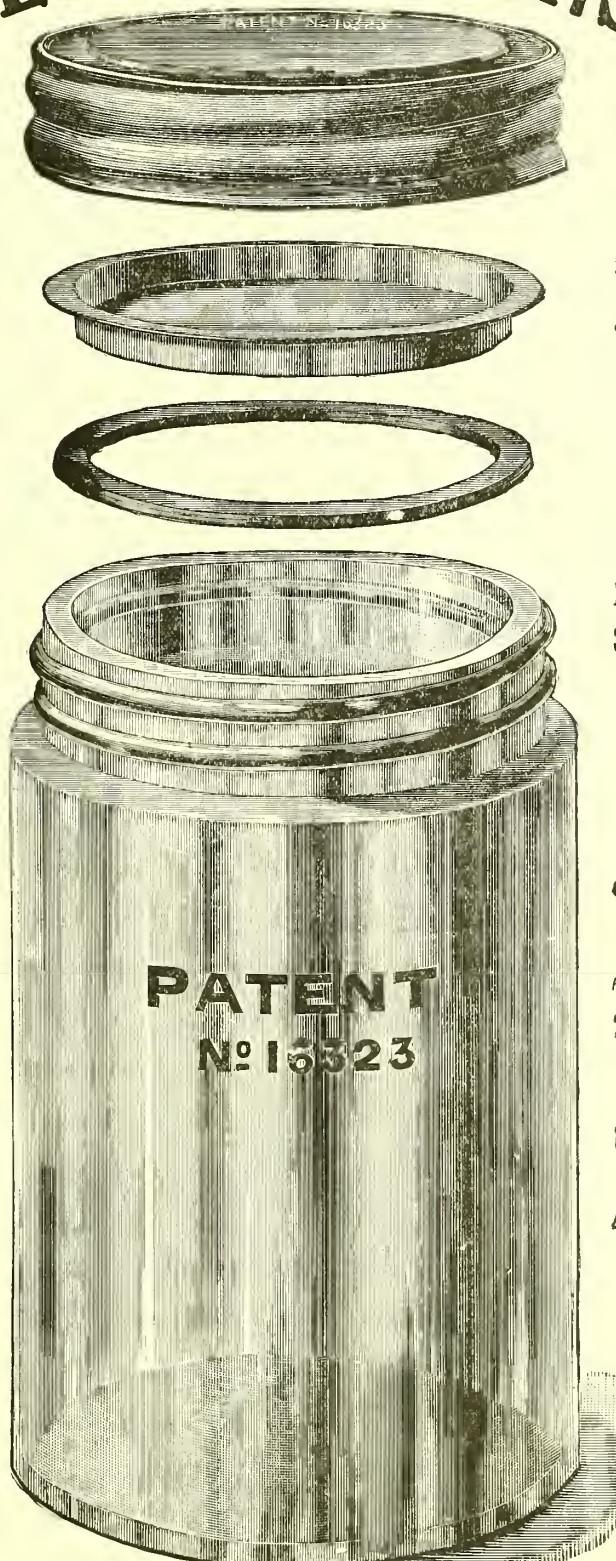
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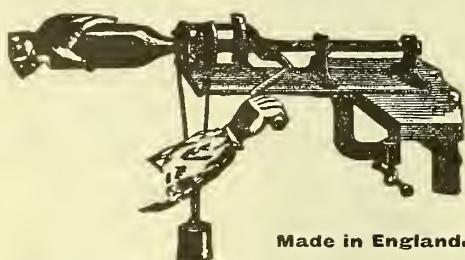
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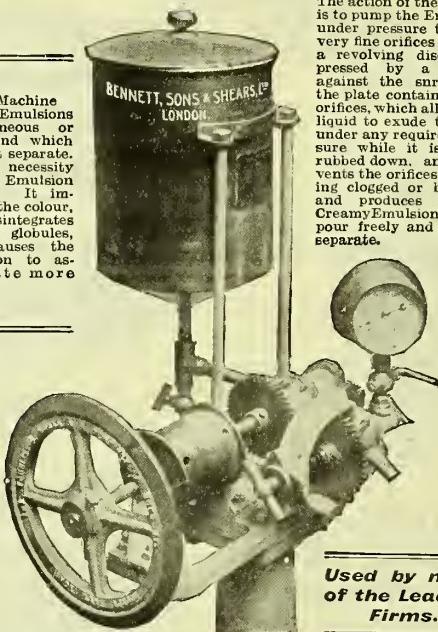
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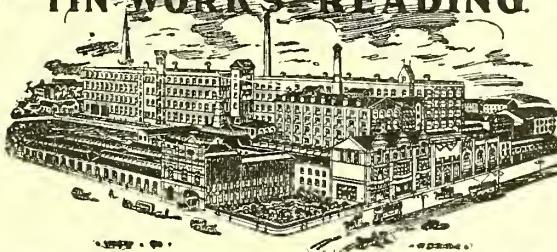
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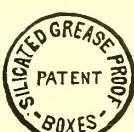
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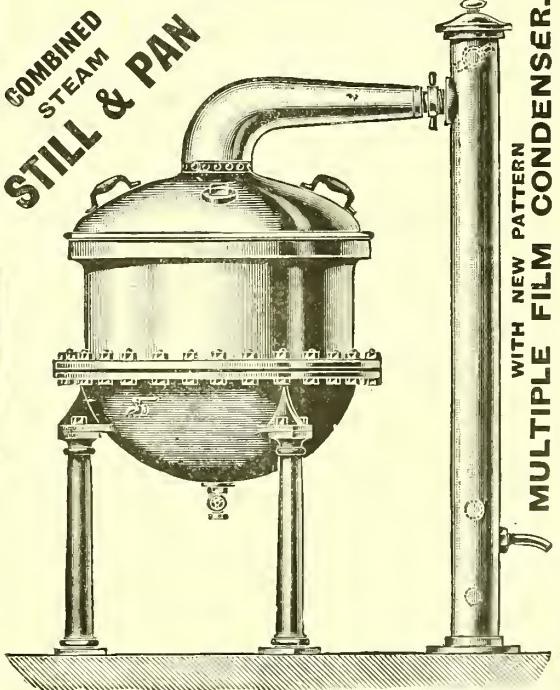
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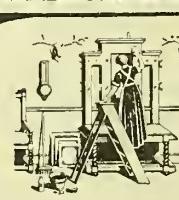
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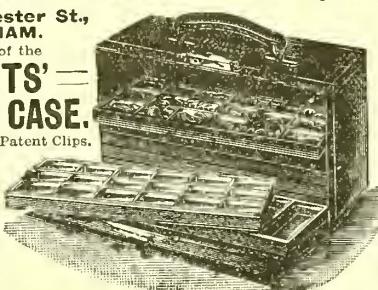
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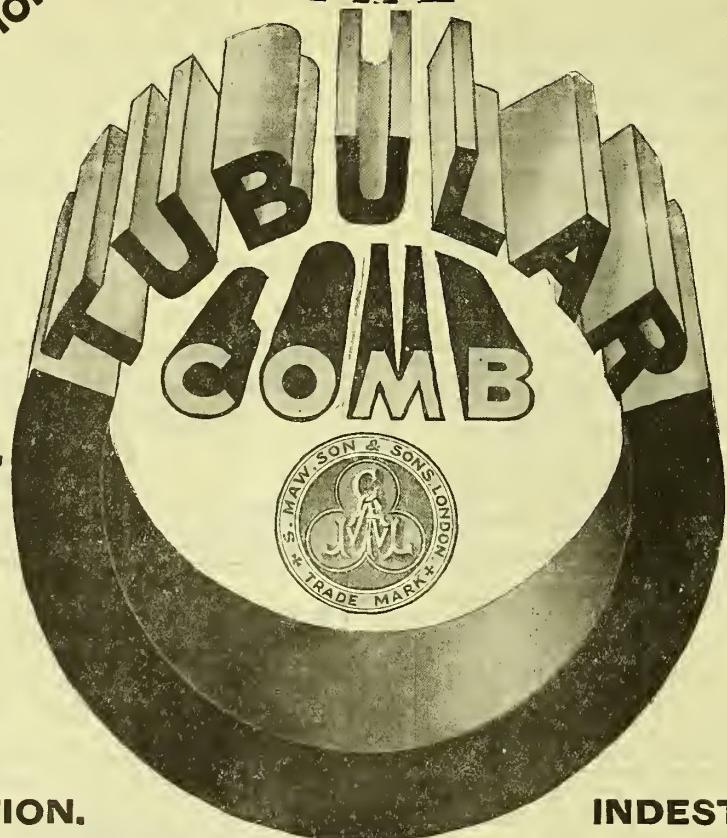
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OFFICE: 42 CANNON STREET, E.C.

SATURDAY, MARCH 26, 1910.

A Copy of this Supplement is inserted in every Number issued of "The Chemist and Druggist."

51

47

27

15

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STOCKTAKING SPECIALISTS to the Entire DRUG TRADE

STAFFS.—Small good-class Dispensing and Light Retail; good house and shop; returns £6 to £7 per week, has done much more, now neglected; very fine chance for a smart young man; price £100.

CHESTER.—Dispensing, Photo, and Light Retail in unopposed country district; good house and double-fronted shop, at low rent; returns £725, at a net profit of £190; price £450, or a near offer considered.

YORKS.—In suburb of large town; nice Light Cash Retail; double-fronted shop; returns £600; price £350.

WILTS.—Light Retail, Dispensing, Prescribing, etc., in fine, healthy, bracing district; returns average £560, at fair profits; good house and medium-sized shop; established 120 years; valuation of stock and fixtures only, about £300.

We have for Sale, chiefly in the LANCS, MIDLANDS, and LONDON districts, several small and genuine Businesses. Correspondence invited from bona-fide buyers.

SUSSEX.—Fine high-class Retail and Dispensing Business; returns over £1,200; large, well-fitted shop with roomy house attached; price £950.

NOTTINGHAM.—Light Retail and Prescribing; no Patents; in thickly populated district; very old established; returns £600, at a net profit of £300; price £300; to the right man this Business is the very thing.

MIDDLESEX.—Cash Retail, Dispensing, and Prescribing; fine house and splendidly fitted shop; returns £620; net profit £200; price £400, or close offer; part can remain, and a trial allowed to a bona-fide purchaser.

N.E. COAST.—Light Retail, Dispensing; very few Patents; situated in very popular seaside resort; good double-fronted shop with large House; returns £680; net profit £200; price, valuation of stock and fixtures, about £500.

We have cash buyers wanting Businesses principally in Yorks. N.W. Coast, and the Midlands; returns anything between £1,000 and £5,000. We invite correspondence from vendors of real sound concerns answering to the above who may rest assured of our personal and confidential attention.

PARSON C. BAKER

174 VICTORIA ST., LONDON, S.W.

Recommended by—MESSRS. BARRON, HARVEYS & CO.

Telephone : No. 27 Victoria MESSRS. MEGGESEN & CO.

SOUTH COAST.—Good Business town; central position; a very much neglected Retail, Prescribing and Dispensing Business, with good house and shop; good window; capable of doing in proper hands very large turnover; now only about £500; rent £60 on lease; owner must leave, and first reasonable offer will be accepted.

SOUTH LONDON.—Good double-fronted Shop and large house; £75; opened 5 years and returning £1,500, continuously increasing under good qualified manager; price is £1,000, or near offer, and net profits are guaranteed about £500; the fullest investigation is desired, or Partnership could be arranged.

HAMPSTEAD.—An old-established Pharmacy, doing nice Dispensing and Family trade at good prices, is for Disposal at less than the value of the stock and fixtures owing to proprietor's ill-health; well-fitted shop and excellent windows; price about £250.

VALUATIONS for Sale, Purchase, or Probate. Annual or periodical valuations at very reasonable prices. Inquiries solicited.

FREDK. WM. SMITH,

Licensed Chemists' Valuer.

Businesses for disposal, Valuations for transfer, Probate, &c. Stocks and fixtures purchased to any amount for cash. Stocktakeings undertaken, personally conducted.

3 Belgrave Terrace, LEEDS. Telephone 2949.

TOM TOM

Telegraphic Address.
THOS. TOMLINSON & SON.
Chemists' Valuers and Expert Stocktakers,
Businesses transferred privately.
29 NEW CANNON STREET, MANCHESTER.

MESSRS. BERDOE & FISH,

Chemists' Valuers and Transfer Agents,

35 JEWRY STREET, FENCHURCH STREET, CITY.

TELEPHONE: 1809 CENTRAL.

Have the following Businesses for Disposal. (No charge to Purchasers.)

1.—NORTH OF ENGLAND.—Photographic Chemist's Business; in excellent position; returns over £4,000; clear net profit £600; handsome shop, heavily stocked; owner retiring; price £1,600; strongly recommended.

2.—LANCS. COAST.—High-class Retail and Dispensing Business; full price obtained; easily worked; returns about £1,000; net profit £400; splendid position; scope for increase; price £1,000.

3.—EASTERN COUNTY.—Unopposed Light Country Retail, with valuable appointment; returns nearly £800; net profit £250; low rent; good house and shop; well stocked; same hands many years; price £500.

4.—HOME COUNTY.—Good-class Light Retail Business, in very best position; returns £2,000; net profit £450 clear; well fitted and stocked; price £1,000; personally recommended.

5.—GLOUCS.—Very profitable Retail, Dispensing, and Prescribing, with own Specialities; in good-class district; returns £450; net profit exceeds £200; good house; price £200, under valuation.

6.—LONDON, SOUTH (Distant Suburb).—Good-class Retail and Dispensing, with valuable appointment; returns over £1,000; good profits; convenient house; stock and fixtures worth £600; price £725.

7.—WEST LONDON.—Good-class Light Retail, in growing suburb; returns over £900, under manager; plenty of scope; price £650; stock and fixtures worth £500.

8.—LONDON, E.—Profitable Cash Retail; returns £400; net profit £170; very low rent; selling through old age; price £150.

9.—SUFFOLK (Market Town).—Good-class Light Retail with valuable Specialities; returns £900; net profit £270; capable of increase; splendid house and garden; price £800, or £100 and valuation; strongly recommended.

10.—KENT COAST.—Good-class Retail, Dispensing, and Prescribing Business, in splendid position; returns £950, increasing; modern-fitted shop, fully stocked; unlimited scope; price £750, or offer.

11.—CHESTER.—High-class Dispensing and Retail Business in most desirable locality; returns nearly £700; clear net profit £250; low rent; good house; handsome Pharmacy; price £450.

12.—SOUTH COAST.—Light Retail, Dispensing, and Prescribing Business in good position; returns £800; net profit £200 to £250; good house and shop; low rent; long lease; price £520, or £200 down and £365 by instalments.

13.—MIDDLESEX (few miles out).—Profitable Light Retail and Prescribing Business in very good position; returns £500; excellent opening for Dentistry; good house and garden; low rent; price £200, or near offer.

14.—LONDON, N.W.—Good-class Retail and Dispensing Business; returns £1,300, at good profits; very few Patents; handsome shop, fully stocked; excellent position; price £950.

15.—LONDON (Surrey Suburb).—Light Family Retail Business for immediate Sale, returns over £600; net profit £200 to £250; no near opposition; good house; price only £350.

16.—LONDON, N. (Death Canvey).—Profitable Retail and Prescribing Business; in busy main road; returns £500; scope for increase; corner shop, well stocked; must be sold; offers invited.

STOCKTAKING VALUATIONS.

WE undertake valuations in any part of the kingdom, and value the stock in full detail without disturbing the routine of the business in the slightest degree. Read p. 132 in *C. & D. Diary*, and then write for our special reduced terms:

BUSINESSES WANTED.

MESSRS. BERDOE & FISH are in immediate want of sound concerns returning from £200 to £3,000, particularly in the Home Counties, West of England, Midlands, and Manchester districts; cash buyers waiting, quick sales guaranteed, without publicity. Terms sent on application.

H. P. ALEXANDER,
LICENSED EXPERT VALUER,
211 GRAHAM ROAD, LONDON, N.E.
UNDERTAKES VALUATIONS FOR SALE,
PURCHASE, PROBATE AND STOCKTAKING
on reasonable terms.
OF WELL-KNOWN EXPERIENCE TO LONDON HOUSES.
Businesses Wanted and for Sale. Chemists' and Assistants' Wants Undertaken.

We desire particularly to draw the attention of Colonial and Foreign Subscribers to the fact that in cases where they require partners, agents, or assistants, or wish to sell their businesses, an advertisement in this Supplement, placed in every copy of "The Chemist and Druggist," should be the readiest means of helping them to attain their object. The tariff for such announcements is given under the appropriate headings in the Supplement. Instructions and remittances can be sent to us direct or through the advertisers' correspondents in this country.

BUSINESSES FOR DISPOSAL.

3s. 6d. for 50 words or less; 6d. for every 10 words beyond, prepaid.

COLONIAL BUSINESSES.

We call the special attention of our Colonial subscribers to the opportunity this Supplement affords when they wish to dispose of their Businesses, of getting into touch with likely buyers either at home or in the Colonies.

Replies to Advertisements may be addressed to this Office and forwarded to the Advertiser for an additional charge of 6d. Trade circulars and samples can in no case be forwarded.

LONDON, E.—Death vacancy: splendid position in busy main thoroughfare; well fitted and stocked; Retail, Dispensing, and Prescribing; cash trade. For full particulars apply to Manager, 99 Mile End Road.

MIDLANDS.—Good-class Retail in residential suburb of large town; exceptionally well fitted, large shop by first-class London firm; fixtures, fittings, etc., £250 to £300, stock £200; buyer can take what he likes of the latter; returns under principal were £1,000, and could again; now £600; a genuine concern. 115/34, Office of this Paper.

NOTTINGHAM (Suburb).—Profitable Retail, Prescribing Cash Business; corner position; returns now about £650 (has done considerably more); elegant Pharmacy; good house, bath, w.c.; excellent stock; grand prospects; about £350 entertained; owner taking other business; no agents. "Opportunity" (249/38), Office of this Paper.

NORTH OF SCOTLAND.—Village Business for Sale; in same hands many years; satisfactory reasons for disposal. 250/33, Office of this Paper.

A PROFITABLE and increasing Drug Business; Prescribing, own Proprietaries, etc.; would suit young beginner or elderly Chemist; scope for increase; rent, taxes, gas 10s. 6d. weekly; house convenient; deafness cause of disposal; price £100, or best offer. "Bona," c/o E. Wilson, Chestergate Pharmacy, Stockport.

A REAL sound Business is for Sale in a prosperous town in the North of England; well-fitted shop; returns £600; net profit £200; price asked, valuation of stock and fixtures, about £450; chiefly Light Retail and Dispensing; in main thoroughfare. Apply, "North," c/o Brett & Co., 73 Laurel Road, Leicester.

CHEMIST and Druggist; fashionable suburb of Liverpool, Cheshire side; established 35 years; low rent; modern house, every convenience; rising neighbourhood; satisfactory reasons for selling; price £350, or near offer considered. Particulars, in confidence, from John Brown & Co., 34 South John Street, Liverpool.

SMALL increasing Business, recently opened; present returns £6 weekly; low rent; practically unopposed; price £80; large population. "Velox" (248/31), Office of this Paper.

UNDER A Deed of Assignment for the benefit of Creditors re E. F. Aston, M.P.S., 216 Coventry Road, Birmingham, Chemist and Druggist.—The Trustee herein offers for Sale as a going concern the above well-established Business; double-fronted shop; good living accommodation; rent £38 per annum; returns last year £510; could be readily increased; business established over 40 years. For further particulars apply to the Trustee, J. Durie Kerr, 5 Waterloo Street, Birmingham.

BUSINESSES WANTED.

ADVERTISER requires a genuine Business; returns from £700 to £1,000, or larger if part of purchase-money could be paid by instalments. Full particulars, in confidence, to "Statim" (248/21), Office of this Paper.

FOR SALE.

SECOND-HAND COMPLETE FITTINGS for Sale, solid mahogany throughout, best London make: Counter, Counter-cases, Dispensing-screen, Wall-fittings, etc.; also Bottles. Particulars on application to "J. P. B.", 65 Duke Street, Darlington.

TO LET.

TO CHEMISTS.—Finest opening in the suburbs; unopposed position; capital shop, with good house; rent £60, on lease. Apply on premises. The Promenade, Mill Hill, N.W., facing Midland Station, or C. Rawley, Cross & Co., 76a Chancery Lane, W.C.

PARTNERSHIPS.

PARTNER wanted (sleeping, part-time, or active) by private company making Hygienic Articles; Chemist, Oculist, or Medical man preferred; one interested in Health, Mind, and Physical Culture; profits and prospects unique; small investment. Write, stating qualifications and capital at disposal, "H." (251/15), Office of this Paper.

WANTED, a situation for a qualified man to assist in or manage a business with view to purchase in a few months; cash at command £300, or more to be paid by mutual arrangement; London preferred; highest references. Apply, "Safety," c/o Evans Sons Lescher & Webb, Ltd., London, E.C.

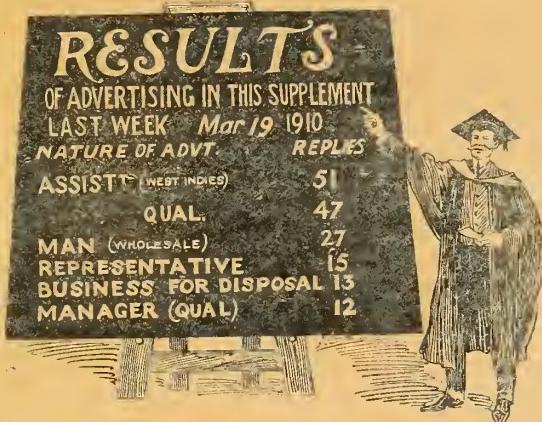
AGENCIES.

RETIRED Chemist, still young and active, seeks good Agency, Chemical or Pharmaceutical Products or Perfumery. Laboureur, 143 Avenue de Bercy, Paris, France.

SITUATIONS OPEN

3s. 6d. for 50 words or less; 6d. for every 10 words beyond, prepaid.

NOTE.—Replies can be addressed to this Office and forwarded to the Advertiser for an additional charge of 6d.



This Blackboard demonstrates that Advertisers using these columns get a ready response to their announcements. The figures only refer to some of the letters RECEIVED AT OUR OFFICE on behalf of advertisers who use a number or nom de plume.

TO SAVE TROUBLE.

MANY correspondents answering advertisements in this Supplement enclose remittances to cover the cost of forwarding their letters to advertisers who prefer to be addressed c/o this Office. The Publisher desires to make it clear that this is quite superfluous, and perhaps this reminder will obviate the necessity of the frequent return by him of such remittances.

ANSWER IN TERMS OF THE ADVERTISEMENT AND

REMEMBER you are one of possibly hundreds applying for the same position. Put your case before the advertiser so that he may be able to form a MENTAL PICTURE of your suitableness.

BE BRIEF BUT CLEAR—millions of applications are consigned to the waste-paper basket UNCONSIDERED, because the reader cannot form this picture from the inadequacy of the materials set before him.

REPLIES TO ADVERTISEMENTS may be addressed to this Office and forwarded to the Advertiser for an additional charge of 6d. Trade circulars and samples can in no case be forwarded.

RETAIL.

ABERDEEN.—Unqualified Assistant required for modern Cash business; good salesman, window-dresser, and Dispenser; plenty scope for a keen man; an Aberdonian with London or South experience preferred. Apply, by letter only, giving full particulars, to "J. M.," 81 Marjola Road, Clapton, London, N.E.

BRIMLEY (Kent).—Wanted, gentlemanly Assistant, about 24 years; height 5 ft. 8 in.; Manipulative Surgery and Analysis. R. C. Davenport, Chemist, Bromley, Kent.

CHEL滕HAM.—R. Jeffrey & Son will shortly have a vacancy for a good Assistant, accustomed to high-class Dispensing; one only kept; please state salary required and usual particulars; letters not answered in three days declined.

ILFRACOMBE.—Junior Assistant for Dispensing and Light Retail, with a thorough knowledge of Photography. Apply, with usual particulars, with reference and salary required, W. J. Moon, 2 High Street.

LEICESTER INFIRMARY.—Wanted, a Male Assistant Dispenser; not over 30; minor qualification; salary £90. Apply, not later than April 4, with copies of three recent testimonials, to the House Governor and Secretary, Leicester Infirmary.

LONDON, S.W.—Qualified Assistant (23-25) wanted, for April 18; indoors; accurate Dispenser. Pope, Roach & Son, 8 St. James's Street, London, S.W.

LONDON, W.—Qualified Assistant wanted in a first-class house, where 4 are kept. State age, height, and salary required (indoors), enclosing photo, to "Casca," c/o Messrs. Meggeson & Co., Miles Lane, Cannon Street, E.C.

LONDON. W.—Wanted, a capable Assistant, accustomed to good-class Dispensing; indoors; qualified preferred. W. McEwen, 17 Craven Road, Hyde Park, W.

LONDON, W.—Wanted, after Easter, smart young qualified Assistant, as first Counterman; of good appearance, and must be good experienced Salesman. S. F. Goss, Ltd., 460 Oxford Street, W.

LONDON, N.W.—Unqualified Assistant wanted for high-class business; indoors; only one kept; age about 25; must be a reliable Dispenser and good Salesman. Apply by letter, giving full particulars, salary required, and enclose photo. "Pharmacist," c/o Messrs. Heaton, Squire & Francis, Ltd., 22-30 Graham Street, City Read, N.

MALVERN.—Qualified Assistant, accustomed to Dispensing and best-class Retail. Please state full particulars as to previous experience, salary required (indoors), when disengaged, &c., to A. Mander, Pharmaceutical Chemist, Malvern.

PARIS.—English Assistant required, end of March. Apply Monsieur Jardin, 3 Rue de la Sourdière, Paris.

SOUTH AFRICA.—A Senior qualified Assistant required; salary £20 per month first year, £21 second, £22 third; three years' agreement; passage paid out; bedroom provided. Write, "L.", 54-8 Queen Elizabeth Street, Tower Bridge, London, S.E.

SOUTH WALES.—Unqualified Assistant wanted, age 20 to 30, with knowledge of bookkeeping and canvassing; must be smart, good writer, and sober; hours easy. 250/10, Office of this Paper.

TRANSVAAL.—Qualified Assistant; strictly honest, reliable, and energetic; abstainer preferred; age 25 to 35; unmarried; 3 years' agreement; £21, £22, £23 monthly respectively; furnished room provided; fare paid out. Send testimonials and record, 116/21, Office of this Paper.

YORKSHIRE.—Junior (outdoors), abstainer preferred, for working and middle class trade, to look after Warehouse, Stock, etc., and attend Counter; only one kept; no Sunday duty; weekly half holiday. State age, height (photo), salary required, etc., with references, to Irving, Chemist, Skipton.

A QUALIFIED Assistant, from 25 to 35, to take charge of a Branch; must be accustomed to good-class trade; a knowledge of Photography desirable. J. W. Taplin, 6 Cricklewood Broadway, London, N.W.

ASSISTANT; outdoors; Dispensing and Photographic experience essential; business hours 8.30 to 9, Saturdays 8.30 to 10.30; half-day weekly. Apply by letter to A. T. Barnes, 199 Rushey Green, Catford.

DISPENSER (qualified) and Bookkeeper wanted by a firm of Surgeons. Apply, after 5.45 p.m., 194 or 143 Hammersmith Road, W.

EWARD C. PERKS & CO., 1 Sloane Square, S.W., require a qualified Assistant; indoors; a thorough knowledge of Dispensing essential.

P. S. GAUBERT, Chemist, Wembley, has a vacancy for married man as Assistant; wife to act as housekeeper.

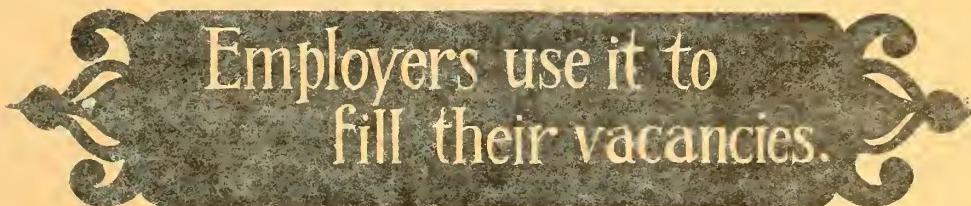
GENTLEMANLY Assistant required, at once; high-class Light Retail, Dispensing business; Yorkshire city; accustomed to Photography; good Salesman, Dispenser, and Window-dresser; single; about 24; unqualified; usual hours; no Sunday duty; applicants please send full particulars of age, height, experience, and salary required (outdoors), enclosing photograph (returnable), 249/23, Office of this Paper.

J. ELLIS, Wallasey, requires a Junior; Dispensing.

JUNIOR (about 21 years), indoors, in good-class Dispensing business, about 21st; excellent opportunity to get experience in Dispensing. Send usual particulars and salary required to J. W. Feltwell, Chemist, 91 Hammersmith Road, West Kensington.

JUNIOR wanted, about 18 or 19 years of age. Apply, 70 Tottenham Court Road, W.

JUNIOR Assistant wanted for good-class business: knowledge of Photography essential; Extracting and Optics desirable; easy hours; half-holiday weekly; no Sunday duty. Apply by letter, giving full particulars and salary required (outdoors) to H. S. Adams, Pangbourne Pharmacy, Berks.



RYAL INFIRMARY, MANCHESTER.—Wanted, at once, a Minor man, with experience in making the Pharmacopoeia Preparations in large and small quantities and to assist in Dispensing; age not over 30; hours 8.30 to 6 p.m.; salary £90. Apply, with copies of recent testimonials, to the General Superintendent.

WANTED, an Assistant (indoors), to take charge of small Branch. Apply, stating age, experience, references, and enclose photo, to S. A. Perkins, 15 Cumberland Street, Devonport.

WANTED, Senior Assistant: qualified; outdoors. Apply, stating age, height, reference, salary, and enclose photo, Milton & Son, 265 High Street, Exeter.

WANTED, steady, reliable Assistant: one seeking a permanency preferred; London or district applicants need not reply. Full particulars, salary required, and photo, 249/6, Office of this Paper.

WHOLESALE.

A FIRM of methylated-spirit makers desire a capable young Representative for the sale of Methylated Spirit, S.V.R., Spirit Varnishes and French Polish, Shellacs, Gums, Oils, and Drysalteries. State experience, connection, and ground covered, age, references, and salary expected, to 247/25, Office of this Paper.

A LONDON firm of Pill Manufacturers require the services of a qualified Chemist. Write, stating salary required and experience, to "Pills" (250/2), Office of this Paper.

IAD.—A strong and intelligent youth wanted, preferably with some practical knowledge of the Manufacture of Granular Preparations. State age, experience, and wages required, to 249/10, Office of this Paper.

MANAGER wanted for important Proprietary Food Co.; one who has had wide experience with the Grocery and Chemist trade and capable of taking control of a business equipped with ample funds and facilities for doing a large and important trade. Apply, stating age, experience, and testimonials, to "Food," c/o Durrant's Agency, 8 Surrey Street, W.C.

PARTNERSHIP.—An exceptional opportunity of entering one of the best-established high-class houses in the trade; capital required not less than £5,000; preference given to an efficient, energetic, qualified gentleman, not more than 35 years of age. Apply, in first instance, by letter, with full particulars and experience, to "H." c/o J. H. Smith, Solicitor, 20 Finsbury Square, E.C.

REPRESENTATIVES wanted, able to sell Ointments, Pills, and such class of Speciality: those appointed will have the finest proposition ever offered by any firm; hundreds of grosses booked this week; applicants will be paid liberal commission, and must state houses represented and ground covered, or none will be answered; give return address for three days after 29th. "Acle" (251/16), Office of this Paper.

TRAVELLER wanted for Glasgow and district and South of Scotland by a well-known firm of Wholesale Druggists and Manufacturing Chemists; must be energetic and have thorough knowledge of the trade and a good connection amongst Chemists, Doctors, and Veterinary Surgeons. Applications, strictly confidential, stating age, full particulars of experience, with ground covered, turnover, salary required, and photograph, if possible, 246/1, Office of this Paper.

TRAVELLERS (London and country) wanted, to take up a new line of Soothers on commission basis, Wholesale only. Apply, by letter, to Raines Patents Manufacturing Co., Ltd., 12A Finsbury Square, E.C.

SITUATIONS WANTED

(Colonial, Indian, and Foreign).

1s. for 12 words or less; 6d. for every 10 words beyond, prepaid. Replies addressed to this office will be forwarded to the advertiser for an additional charge of 6d.

This heading is reserved for assistants seeking situations in the British Colonies, India, and Dependencies or elsewhere abroad.

CONTINENT.—English Assistant; 26; qualified; good experience and references. "Pharmaciens," c/o Smyth, 11 Rue S. Michel, Menton.

INDIA.—Assistant (22), unqualified, seeks situation in India (West Indies preferred); 4 years' East and West End experience. Address, Geo. J. J., 13 Wharton Street, King's Cross, London, W.C.

CHEMIST (30) seeks Management; disengaged September next; English, South American, and Indian experience; Aerated Waters, Photography, etc.; excellent references. "Ganges" (206/17), Office of this Paper.

FRENCH qualified Pharmacist seeks situation in Belgium in view of Brussels Exhibition; or Switzerland resort places; speaks English, German, Italian fluently; excellent references; knows Photographic work thoroughly. 251/1, Office of this Paper.

SITUATIONS WANTED

[HOME]

RETAIL.

EMPLOYER wanted; one who is desirous of having his Branch conducted on business principles by a thoroughly competent man. "Co-Servant" (250/23), Office of this Paper.

ASSISTANT; 25; West-End Dispensing experience; last berth over two years; now disengaged. "Aspirin," 12 Devonshire Terrace, Hastings.

MANAGER; qualified; elderly, active; single; best varied experience. "Drugs," Botley, Hants.

DISPENSER to Doctor; experienced; unqualified; married; 36. Thornton, 57 Avenue Road, Westcliff-on-Sea.

JUNIOR or Improver; 19; 4 years' experience; disengaged; references. Apply, "Alpha," Emlyn Office, Treorchy.

MANAGER; qualified; experienced; disengaged April 12; permanency preferred. 250/12, Office of this Paper.

ASSISTANT; unqualified; 34; outdoors; 10 years in present situation. Forbes, 6 Heathville Road, Crouch Hill, London.

QUALIFIED (28), married, desires appointment as Manager; experienced; W. preferred. 249/15, Office of this Paper.

MANAGER; qualified; 30; Continental experience; unimpeachable references; disengaged. 250/4, Office of this Paper.

THOROUGHLY experienced; competent; unqualified; outdoors; 23; excellent references. Wild, 163 Cathays Terrace, Cardiff.

UNQUALIFIED; Assistant or Manager; Loosan; permanency; good references. Apply, Ellis, 1 Langstone Road, Portsmouth.

UNQUALIFIED; 22; tall; abstainer; trustworthy, capable taking charge; North preferred; disengaged. "Jecovol" (250/13), Office of this Paper.

HOSPITAL, Institutions: Relief Dispenser; mid-age; experienced, reliable, registered. "M.P.S.," 31 Cambridge Road, Sidcup, S.E.

ASSISTANT, Danish qualified, desires situation in London; good references; speaks French and German; small salary. Apply, 247/28, Office of this Paper.

JUNIOR; 20½; high-class Pharmacy and Dispensing; South Coast experience; excellent references; disengaged April 16. Bevan, Ludlow Villa, Newport, Salop.

LOCUM disengaged; where apprentice or boy is kept; 36; Prescriber, Extractor; good salesman and reliable. "Locum," 31 Duchess Road, Birmingham.

QUALIFIED; large all-round experience; elderly, active; disengaged; good Prescriber, etc.; could add Dentistry; single. Manager, 61 Hook Road, Epsom.

JUNIOR or Improver (19), 3½ years' experience, requires situation in high-class business in London. A. C. Smith, Broad Street, Pershore, Worcestershire.

RUSSIAN qualified Chemist desires situation; 7 years' experience in Apothecies; 3 months with London Doctor as Dispenser; references given. 247/35, Office of this Paper.

ASSISTANT; 25; experienced in good-class Dispensing, Retail, and Photographic business; disengaged April 11; outdoors preferred. Brown, 5 Gabriel's Hill, Maidstone.

QUALIFIED; 26; tall; all-round experience; disengaged. Johnson, 36 Large's Street, Derby.

IMPROVER; moderate salary; country preferred. J. Higgin, 5 Station Parade, Palmer's Green, N.

QUALIFIED Locum; disengaged until April 9; experienced. W. Baiss Bros., Ltd., 4 Jewry Street, E.C.

BEST experience; outdoors; London; disengaged after Easter; qualified. "Florys," 161 Fulham Road.

DISENGAGED; unqualified; several years' experience. R. M. Lelean, 2 Rockville, Hautville, Guernsey.

LOCUM; qualified; excellent references; disengaged. "Cains," 21A Castletown Road, West Kensington.

ASSISTANT; 22; good references; time for study preferred. R. Webber, "Rose Bank," Westbury Road, Bristol.

JUNIOR; 19; good references; shortly disengaged. "Rhei," c/o Mrs. Gordon, Crescenor Terrace, St. Neots, Hunts.

MANAGER or Assistant; London preferred; all-round experience; references; age 37. 35 Melborne Road, Ilford, Essex.

RETAIL or Dispensing; temporary, otherwise; all-round; gentlemanly, trustworthy; moderate. "Statim," 55 Fieldgate Street, E.

ASSISTANT; 23; accustomed to Manage; tall; smart Salesman; varied experience. Apply, "W.," 271 Camberwell New Road, S.E.

MANAGER; middle-aged; London experience in first-class Pharmacies; excellent references; disengaged. 242/26, Office of this Paper.

DOCTOR'S daughter, qualified Dispenser, experienced Hospital, private work, desires post in or near London. 142 Grove Road, Mile End, E.

QUALIFIED, as Manager; thorough experience; good Dispenser; reliable; prospects of interest; London. "Salol," 221 Feltham Road, Putney.

REILIEF or permanency; smart, active business man; varied experience. City and suburban; good testimonials; disengaged. Forster, 5 Coleridge Road, Finsbury Park, N.

AS Junior Assistant in high-class Dispensing business; aged 20; good appearance and address; London or South Coast preferred. H. F. Stapley, 9 Howard Road, Southampton.

UNQUALIFIED; Prescriber, Photo, Dispenser; smart Counter-hand; gentlemanly; desires eight weeks' engagement. 245/40, Office of this Paper.

UNQUALIFIED; 30; tall; disengaged shortly; good references; experienced also amongst Farmers; steady; 30s. (outdoors); town or country; permanent. Hackforth, 28 High Street, Maryport.

ASSISTANT; 29; smart; unqualified; high-class Dispensing and Counter work, also Store experience; exceptional references; Liverpool, Leeds, or London preferred. Apply, 243/25, Office of this Paper.

AFTER Easter; capable Assistant; 29; single; reliable Dispenser; good Salesman, Window-dresser, Photography; excellent references; abstainer. "Cascara," 56 Carisbrooke Road, St. Leonards, Sussex.

MANAGER or Assistant; qualified; experienced; London and country; age 43; height 5 ft. 10 in.; excellent references. Longman, Stuart House, Edwards Terrace, Cardiff.

Mr. FRANCIS PHILLIPS, Pharmacist, Market Street, Haverfordwest, recommends his Junior Assistant; good-class London or provincial Dispensing business; disengaged after Easter; age 21.

QUALIFIED; outdoors; nearly 23; high-class all-round experience in Retail, Dispensing, General Pharmacy, and Photographic; highest possible references. Hughes, 30 Gladys Avenue, North End, Portsmouth.

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ABLE Representative seeks appointment as Interviewer, introducing Medical Speciality to profession. 250/9, Office of this Paper.

REPRESENTATIVE seeks re-engagement; large personal connection, Liverpool, Cheshire, North Wales, etc., Drug or Sundries, with firm of repute. "Commercial" 103 Walton Creek Road, Liverpool.

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MISCELLANEOUS.

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SHARES FOR SALE (free of commission, subject).—200 Bakul Oil (6s. paid), 4s. 4d.; 54 Evans Lescher Preference, £5 6s. 9d., o.d.; 50 Ilford Preference, 16s. 9d., 110 G. B. Kent Preference, 17s. 10d.; 100 A. J. White Ordinary, 2s. 2d.; 126 Wright, Layman 6 per cent. Preference, 22s. 6d., c.d.; 200 Schweppes Deferred, 7s. 4d.

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List of shares for sale and wanted sent free on application. Bankers, London County and Westminster. Established 1898.

CHIMISTS' SHOP-FITTINGS (SECOND-HAND).—Ranges mahogany drawers, with bevelled-edge glass labels and cut-glass knobs, shelving above, lockers below; mahogany dispensing-screws, counters with glass-case fronts, wall cases, bent-front and flat-top counter-cases, counter-desks, tooth-brush cases, complete shop-rounds, etc.; every requisite for chemists; extensive stock to select from at extremely low prices; practical men sent to all parts; illustrated catalogues and estimates free. MATTHEWS, CHEMISTS' FITTER, 14 and 16 MANCHESTER STREET, LIVERPOOL.

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SODA-WATER Trolley, on which a boy of 8 can easily convey 3 doz. syphons; will go through any doorway; dozens in use in all parts of the country; easily stored; sent on approval, carriage free, price 37s. Sole Makers, Arthur & Co., Cambridge.

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SHARES.

SHARES for sale.—See p. xxxix.

SHOP FITTINGS.

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SODA-FOUNTAIN, elaborate nickel counter arm; Farrow-Jackson's; complete £10; Roberts' filling-machine, £12, or nearest offers. BAMBER, 267 Lancaster Road, Preston.

MISCELLANEOUS.

WATER-BED, good order, 3 ft. by 6 ft.; 25s., carriage forward. ROWSELL, 11 Crebor Street, Dulwich.

FOR sale, 1 doz. 10-oz. recess ointment-jars, 1 set Maw's dispensing-scales, 6 doz. stoppered drug-bottles, 1 oz. to 4 oz., 1 double pil-mortar (compo), with pestle, ½ oz. otto roses, 4 oz. sodii salicylas P.P., 1 oz. quinina sulph. and 1 medicine-chest; what offer for lot or part? Address, 251/18, Office of this Paper.

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DISPENSING and counter scales; must meet requirements of new Act. 249/39, Office of this Paper.

RAT poison, in bulk, or put up own name, and contain no scheduled poison; cheap for cash. MORGAN DAVIES, Llanbyther.

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IF Mr. W. J. Page, formerly an assistant in the Botica Inglesa, Oruro, Bolivia, South America, will communicate with Mr. Tallantyre, Evans Sons Leesher & Webb, Ltd., 56 Hanover Street, Liverpool, he will hear of something to his advantage.

Trade-marks Applied For.

Objections to the registration of any of the undermentioned applications must be stated on Form T.M. No. 7 (obtainable at Money Order Offices for £1) and lodged with Mr. Temple Franks, Comptroller-General, Patents Office, 25 Southampton Buildings, Chancery Lane, London, W.C., within one month of the dates mentioned.

The figures in parentheses refer to the classes in which the marks are desired.

(From the "Trade-marks Journal," March 16, 1910.) "VIRMALT": for a beverage (42). By S. B. Sketch & Co., Sunny Hill, Johnston, Haverfordwest. 319,637.

Device of shamrock; for mineral and aerated waters (44). By Clonard Mineral Water Co., 138A Falls Road, Belfast. 316,030.

Device of man's arm grasping dagger; for mineral and aerated waters (44). By G. Audley, 10 and 12 Pall Mall, Liverpool. 319,030.

"TANSAN," and label device; for a natural mineral water (44). By J. C. Wilkinson, 82 Kyomachi, Kobe, Hiogo, Japan. 319,507.

"STROBIN," and label device; for a straw hat cleaner (47). By M. Queisner, Hardenbergstrasse 18, Charlottenburg 11, Germany. 318,181.

"IVOROL": for a dentifrice (48). By Harkness, Beaumont & Co., Junction Bridge Works, Edinburgh. 317,006.

"ROZONE": for dentifrices (48). By R. R. Harris, 5 Paper Buildings, Temple, London, E.C. 318,732.

"DACEA": for toilet preparations (48). By Mrs. Pomeroy, Ltd., 33-34 Carnaby Street, Great Marlborough Street, London, W. 319,403.

"OLIVIA": for perfumed soap (48). "ARCADIA": for all goods (48). By Christopher Thomas & Bros., Ltd., Broad Plain Soap Works, Bristol. 320,137, 320,820.

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